DOCUMENT RESUME

ED 167 375	SE 026 742
AUTHOR	Abramson, Mark A.
TITLE	The Funding of Social Knowledge Production and Application: A Survey of Federal Agencies. Study Project on Social Research and Development, Volume 2.
INSTITUTION	National Academy of Sciences - National Research Council, Washington, D.C. Assembly of Behavioral and Social Sciences.
PUB DATE	78
NOTE	501p.; Contains occasional small print; Not available in hard copy due to copyright restrictions
AVAILABLE FROM	National Academy of Sciences, Publications Office, 2101 Constitution Ave., N.W., Washington, D.C. 20418 (Order No. ISBN 0-309-02780-2; $17.50)
EDRS PRICE	MF-$1.00 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS	Economics; Energy Conservation; *Federal Government; Federal Programs; *Financial Policy; *Financial Support; *Social Problems; Technology
IDENTIFIERS	National Academy of Sciences

ABSTRACT

This survey is volume two of a six-volume report on the organization and management of social research and development throughout the U.S. government. The main body of the work contains a summary of spending for social research and development for each department of the federal government and the independent agencies. Agencies included are: Department of Agriculture; Department of Commerce; Department of Defense; Department of Energy; Department of Health, Education and Welfare; Department of Housing and Urban Development; Department of the Interior; Department of Justice; Department of Labor; Department of State; Department of Transportation; and Department of the Treasury. A number of independent regulatory agencies and independent agencies are included. (BB)

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STUDY PROJECT ON
SOCIAL RESEARCH
AND DEVELOPMENT

The Funding of Social Knowledge Production and Application:

A Survey of Federal Agencies

The
National
Research
Council

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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STUDY PROJECT ON
SOCIAL RESEARCH
AND DEVELOPMENT
VOLUME 2

The Funding of Social Knowledge Production and Application:

A Survey of Federal Agencies

Mark A. Abramson

Study Project on Social Research and Development
Assembly of Behavioral and Social Sciences
National Research Council

NATIONAL ACADEMY OF SCIENCES
Washington, D.C. 1978

NOTICE: The project that is the subject of this report was approved by the Governing Board of the National Research Council, whose members are drawn from the Councils of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The members of the Committee responsible for the report were chosen for their special competences and with regard for appropriate balance.

This report has been reviewed by a group other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

Library of Congress Cataloging in Publication Data

Abramson, Mark A. 1947–
The funding of social knowledge production and application.

At head of title: Study Project on Social Research and Development, volume 2.
1. Social science research—United States. 2. Federal aid to research—United States. 3. Policy sciences—United States. 4. Evaluation research (Social action programs)—United States. I. National Research Council. Study Project on Social Research and Development. II. Title.
H62.5.U5A27 300′.7′2073 78-15423
ISBN 0-309-02780-2

Available from:
Office of Publications
National Academy of Sciences
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

Printed in the United States of America

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Foreword

This report was prepared by the National Research Council for the National Science Foundation (NSF). At the request of NSF's Science and Technology Policy Office in 1974, the National Research Council agreed to undertake a study of the organization and management of social research and development throughout the federal government. To carry out this task, the Study Project on Social Research and Development was established within the Assembly of Behavioral and Social Sciences of the National Research Council.

The work of the Study Project includes six volumes, to be published in 1978–1979:

Volume 1: *The Federal Investment in Knowledge of Social Problems* (Study Project Report)
Volume 2: *The Funding of Social Knowledge Production and Application: A Survey of Federal Agencies*
Volume 3: *Studies in the Management of Social R&D: Selected Policy Areas*
Volume 4: *Studies in the Management of Social R&D: Selected Issues*
Volume 5: *Knowledge and Policy: The Uncertain Connection*
Volume 6: *The Uses of Basic Research: Case Studies in Social Science*

Preface

As one cornerstone for its work, the Study Project on Social Research and Development needed a comprehensive account of spending for social research and development (R&D) throughout the federal government. We therefore undertook a special survey of all federal spending on activities designed to acquire and use knowledge of social problems, the first nongovernmental survey of its kind. This proved to be a long and difficult task, but it gave us a unique insight into the pattern of federal support for social R&D. The findings of the survey contributed to the Study Project's general report and are detailed at a finer level in the pages that follow.

A great many individuals assisted us in this work. In the front lines were the survey's interviewers: Bruce Craig, Patricia P. Koshel, John McCann, Joshua Minkove, Pamela Neff, Jeffrey Nesvet, Diane Rothberg, Howard Simons, and Jan Solomon. Several of these assisted in other ways as well. Patricia Koshel supervised the collection of data from agencies of the U.S. Department of Health, Education, and Welfare and played a major role in the planning and conduct of the survey; Jan Solomon was responsible for the attendant computer work; Pam Neff helped to prepare the chapter on the Department of Transportation; and Diane Rothberg helped to prepare the chapter on the Department of Defense. Jill Klaskin, beyond her other responsibilities for the Study Project, ably served as the survey's administrative assistant.

Several other people on the staff of the Study Project and of the Assembly of Behavioral and Social Sciences played key roles in the survey. Our staff director, Thomas K. Glennan, Jr., gave a great deal of time to organizing the survey and guiding its course. Much of the groundwork was laid by Vincent P. Rock, the Study Project's first executive secretary, who conducted a trial survey of federal spending for social R&D during the first months of our research. Sara B. Kiesler, former study director of the National Research Council's Committee on Social Sciences in the National Science Foundation, wrote the section on the National Science Foundation. Lester P. Silverman, former associate executive director of the Assembly, made invaluable suggestions on the preparation of this volume. Christine L. McShane edited the volume with great skill.

We ought also to record our debt to the individuals throughout the federal government who assisted in the collection of data on social R&D obligations. We had, without exception, excellent cooperation from the departments and agencies of the government. Benjamin L. Olsen and Eleanor Stoddard of the National Science Foundation and James McCullough of the Office of Management and Budget deserve special mention for their assistance during the planning stages of the survey. Ernest F. Powers of the Science and Technology Policy Office in the National Science Foundation also provided critical assistance during the planning stages, quite apart from his role in launching the Study Project as a whole.

But our greatest debt is to Mark A. Abramson, who has had primary responsibility for the survey and for the preparation of this detailed report of its findings. He carried the survey through all of its many stages, from design to data analysis. He wrote the vast bulk of this volume. And he kept a watchful eye on its production after leaving the Assembly to join the Office of the Assistant Secretary for Planning and Evaluation in the U.S. Department of Health, Education, and Welfare. Without his tireless efforts, this account could not have appeared.

Donald E. Stokes, *Chairman*
Study Project on Social Research and Development

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I SCOPE OF THE SURVEY

1 Introduction

During the spring of 1976, the Study Project on Social Research and Development conducted a survey of spending on social research and development (R&D) by the federal government. A summary of the survey findings is presented in the final report of the Study Project on Social Research and Development, *The Federal Investment in Knowledge of Social Problems*. This volume presents the detailed findings of that survey. The data presented in this report were collected by a team of interviewers specifically hired and trained by the Study Project to conduct the survey.

PURPOSE OF THE VOLUME

The objectives of this volume are many. Its simplest aim is to describe the variety of activities funded by the federal government in social science and social research and development. These activities are now common throughout the government. Many agencies support studies employing econometric and simulation models; the use of cost-benefit analysis and survey research is common; complex social experiments are now being supported by several agencies. In many ways, this volume demonstrates the acceptance of social R&D by the federal government.

Another aim of the volume is to "back up" the data presented in the final report of the Study Project. While the final report presents the dollar totals for spending on social R&D in aggregate form, this volume serves to explain the nature of the activities underlying the dollar totals. The volume also serves to illustrate two of the major findings of the Study Project:

○ *The social R&D activities of the federal government are decentralized and widely dispersed.* The funding activities of over 180 agencies, bureaus, offices, and divisions are presented in this volume.

○ *The majority of social R&D activities funded by the federal government are supported by "operating agencies."* The Study Project classified the organizational location of social R&D activities as operating, R&D, policy-making, and statistical agencies. (This classification scheme is discussed in Chapter 2.) Contrary to popular belief, the Study Project found that agencies devoted exclusively to R&D—such as the National Science Foundation (NSF) and the National Institute of Education—fund only a small proportion of the total federal spending on social research and development activities. Of the agencies presented in this volume, only 21 were classified as R&D agencies.

A more ambitious aim of this volume is to serve as a dissemination mechanism of social R&D activities. The Study Project found that federal agencies are often weak in disseminating the results of their R&D activities. In the terminology of the Study Project, the "linkage" between the federal government and the various audiences of social R&D activities needs to be strengthened. In a limited way, this volume attempts to serve as a link between the government and the many, diverse audiences of federal social R&D activities. This volume attempts to let those outside—and even those inside—the government know what social R&D activities the federal government is funding. In addition to describing the major social R&D programs of an agency, the volume cites publications that discuss agency social knowledge production and application activities in more detail.[1] These publications frequently contain lists of projects funded by agencies and information on how those project reports can be obtained.

The Study Project uses a new classification system for social R&D activities. The Study Project felt that a new framework was needed to more accurately describe the nature of the social R&D system. It found that the traditional R&D framework did not adequately describe the variety of activities presently funded under the rubric "social R&D." The Study Project devised a new framework for analyzing social R&D activities—a framework of knowledge production and application.

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[1] The list of key agency publications is not exhaustive. It includes publications (primarily R&D annual reports, publication lists, and project lists) obtained in the course of the Study Project's work. We were unable to obtain publications from some agencies. If a reader is interested in more information about the social knowledge production and application activities of a specific agency, we suggest writing to that agency directly.

The Study Project found that there is currently very little oversight of the social R&D system. Thus, another purpose of this volume is to provide an overview of the entire federal social R&D system, which might enable others to evaluate the system by asking such questions as:

Are there some important problems not being addressed by the federal government's social R&D?

Does the allocation among policy areas presented make sense?

Is the investment in a single category—for example, general purpose statistics—too little or too great?

LIMITATIONS ON THE SURVEY

The Study Project has surveyed, not evaluated, the social R&D carried out by federal agencies. This volume does not attempt to make any judgments as to whether agencies are funding the right sorts of activities or whether the quality of activities is high or low. The Study Project's goal is to provide the raw material for others to begin to make such judgments. This volume does not discuss or evaluate the management of social R&D. The emphasis is placed on describing what the agencies do—not how well they do it.

This volume does not present any information on agency funding procedures and should not be viewed as a grants or contracts directory.[2] Information on agency funding policies and procedures can be obtained by writing the specific agencies. Many agency addresses have been provided. Our objective in this volume is to describe areas of agency funding and types of projects and to provide information on major agency publications.

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[2] Many grants, contracts, and fellowships directories are available. Among the more recent are:

Research Support for Political Scientists, published by the American Political Science Association (1527 New Hampshire Avenue, N.W., Washington, D.C. 20036)

Policy Grants Directory, published by the Policy Studies Organization (361 Lincoln Hall, University of Illinois, Urbana, Illinois 61801)

Annual Register of Grant Support 1977–78, published by Marquis Academic Media (200 East Ohio Street, Chicago, Illinois 60611)

The first two volumes present excellent bibliographies of other sources of information on research support.

This volume presents only the social R&D activities of the executive branch of the federal government. It was deemed beyond the scope of the Study Project to survey social R&D in the legislative and judicial branches. Fact-finding commissions funded by the executive branch were also excluded, but a list of them is presented in the Appendix. A limited number of independent executive agencies were not surveyed, primarily because preliminary analysis did not indicate any social R&D activities funded by them.[3]

There are also limitations on the data for federal dollar obligations. Obtaining data on federal expenditures is an imprecise business. Budget figures are subject to continual change and are never final until a year after the fiscal year is completed and a final accounting is made.

The Study Project's data were collected for fiscal years 1975, 1976, and 1977 during spring 1976, near the midpoint of the middle fiscal year in the three-year budget cycle. The data represent estimates of final figures for fiscal 1975 and estimates of expected obligations for fiscal 1976 and 1977.

The figures for fiscal 1976 were obtained in the final quarter of that fiscal year and are based on obligations made during the first three quarters of the year plus estimates of fourth-quarter obligations. In many agencies, the majority of agency obligations are made in the fourth quarter. Thus, there was still much uncertainty during spring 1976 as to what the final figures for that year would be.

The data for fiscal 1977, which were subject to even more changes, are estimates based on President Ford's January fiscal 1977 budget; they do not reflect subsequent congressional actions. A decision was made not to change the figures collected in the survey on the basis of subsequent congressional actions. Thus, some of the figures for fiscal 1977—which were the most likely to change of the data presented in this volume—are not final.

[3] The National Aeronautics and Space Administration (NASA) was surveyed, but no social knowledge production and application activities were found. NASA did, however, report obligations of $1.3 million in the social sciences for fiscal 1977 to the NSF annual survey of federal funds for R&D. Interviews with NASA staff did not verify or explain what activities those obligations supported.

The Central Intelligence Agency (CIA) presented a unique problem. Interviews with the staff were deemed unfeasible. The only data available on the CIA were contained in the State Department's Foreign Affairs Research Report, which reported that $233,000 was spent on externally funded foreign affairs research in fiscal 1975. No figures were available for their in-house research.

The manner in which agency records are kept is another limitation on the precision of agency obligations for social R&D. The Study Project found that the larger the role of social R&D in an agency, the easier it was to obtain budgetary figures. Agencies that specialized in R&D—such as NSF and the National Institute of Mental Health—created few problems. More problems were encountered in agencies for which social R&D is a minor activity, and consequently the figures obtained from these agencies are rougher and more imprecise. It should also be noted that social R&D programs are infrequently identified as line items in an agency's budget. When they are clearly identified as line items, the precision of the dollar figures increases greatly. In most cases, agency personnel must separate the social R&D component from a larger line item. This is a difficult task and the results are often imprecise.

Dollar figures were collected for the Study Project survey at the program level, not at the level of individual projects. While the definition of programs varied slightly among agencies, programs most frequently represent collections of projects on a particular topic. In spring 1976, each program had a fairly accurate estimate of what its final obligations would be for fiscal 1976. It should be noted, however, that some of the projects or programs presented here may not have actually been funded due to budget or program changes.

Data were not based on individual projects for several reasons. First, fiscal 1976 and fiscal 1977 were not yet ended and all the projects for those years had not yet been selected. Second, it was deemed all but impossible to collect and categorize all the projects funded on social problems by the federal government for three fiscal years.

Three other budgetary caveats should be noted. First, between fiscal 1976 and fiscal 1977, the start of the fiscal year was changed by the federal government from July 1 to October 1. This created a one-time "transition quarter" between fiscal 1976 and fiscal 1977. Because of the added complexity in collecting data for the transition quarter, a decision was made to exclude that quarter from the survey. Second, figures were collected on obligations and not outlays. While outlays represent the actual payment of federal funds in a given year, obligations are financial commitments made by a federal agency that will require outlays during the current or some future fiscal year. Obligations were judged to be a better indicator for the purposes of the survey. Third, the Study Project followed the convention of the Office of Management and Budget (OMB) and NSF and included "overhead" or "salaries and expenses" in the data collected for each program.

PROCEDURES USED IN THE SURVEY

The Study Project survey, conducted between April and June 1976, involved approximately 180 agencies. The Study Project uses the term "agency" to refer to any organizational unit (such as bureau, division, office, service, etc.) of a cabinet-level department. It also refers to "independent" agencies whose principal executive officer reports directly to the President.[4]

The survey was conducted by a team of nine interviewers hired and trained by the Study Project. The author of this volume served as survey director. Because the knowledge production and application framework was novel and potentially difficult, the Study Project felt that personal interviews were needed to assist agency personnel in developing dollar figures for each category. We felt that we could not rely on self-reported data and we could better maintain quality control by collecting the data ourselves. Over 300 individuals were contacted in the course of the survey.

The first step in the study was to analyze the two major sources of existing data on federal research and development: (1) OMB's "Appendix P," which appears annually in the *Special Analyses of the Budget of the United States*, and (2) NSF's annual survey of *Federal Funds for Research, Development, and Other Scientific Activities*.[5] Previous-year publications of NSF and OMB were examined closely. In addition, OMB provided the Study Project with access to each agency's R&D and Statistical Budget Special Analysis submission for fiscal 1977 (OMB Circular A-11, Exhibits 44 and 54). NSF provided us access to each agency's submission to the fiscal 1977 *Federal Funds* survey.

Several other sources of information were also available to the Study Project. Most agencies provided a copy of their fiscal 1977 congressional budget justification, which was analyzed to find programs that included social knowledge production and application activities. In addition, the Study Project had conducted a limited survey in 1974, the

[4] A number of federal agencies have been reorganized since the survey was conducted in spring 1976, and those reorganizations are reflected in this volume. For agencies that existed in 1976 but were later reorganized in some way, this volume presents detailed survey data along with information as to what has happened to the agencies as a result of reorganization. For agencies newly created since 1976, the volume provides descriptions of their functions along with information as to whether they encompass any functions or agencies included in the survey.

[5] Hereafter referred to as NSF *Federal Funds*. The *Federal Funds* series and other publications in the NSF Survey of Science Resources Series are available from the U.S. Government Printing Office, as is the OMB *Special Analyses*.

results of which were used by the survey team. Thus, a great deal was known about each agency prior to interviews with its staff.

Agency R&D obligations, obtained from the NSF and OMB data, were used as the starting point for the survey. The "R&D" obligations were analyzed, first, to see whether or not they were "social" and, second, to see how those obligations might be used in the framework of social knowledge production and application. In many instances, interviews were held with the persons responsible for filling out the agency's R&D submission. In addition to fitting social R&D funds into a framework of social knowledge production and application, the survey team also obtained data on activities (such as program evaluation and statistics) that are not included in research and development figures.

After the field interview with each agency was completed and the data were collected, they were then analyzed by Study Project staff and checked against all the sources discussed above. If questions arose concerning the data, follow-up phone calls were placed to the agency in question. In September 1976, the figures were sent to each agency for their comments. If the agency staff felt that the data were incorrect, they were asked to notify the Study Project.

2 The Framework of Social Knowledge Production and Application

WHY A NEW FRAMEWORK?

The Study Project on Social Research and Development was given a broad mandate to look at a variety of activities that have all come to be associated with social R&D in the minds of governmental policy makers and the academic community. However, many of those activities—such as program evaluation and general purpose social statistics—fall outside the traditional definition of research and development. The traditional R&D framework as well as existing R&D data do not adequately capture the wide diversity of activities supported by the federal government that are aimed at either producing or applying knowledge about social problems.

A new framework, developed by the Study Project, is presented on pages 12 and 13. The Study Project found it useful to think of the diverse activities as falling into two clusters—one centering around the production of new knowledge and the other centering around the application of that knowledge. The framework is based on the premise that there are many ways to produce and apply knowledge about social problems. The Study Project felt that previous attempts tended to focus too narrowly on research and neglect other legitimate means of gaining knowledge.[1] Those previous studies also tended to ignore al-together the application of knowledge. The framework developed by the Study Project enables one to look at the entire system of both knowledge production and knowledge application—not just one portion of that complex system.

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[1] The only exception is the 1964 American Enterprise Institute study, *The Federal Government in Behavioral Science: Fields, Methods and Funds* (contained in U.S. Congress, House, Committee on Government Operations, *The Use of Social Research in Federal*

The Study Project found the traditional R&D approach lacking in several other respects. First, the categories of research (basic and applied) and development seem to more accurately reflect perceptions of the physical sciences and technological R&D. Second, the distinction between basic and applied research in the social and behavioral sciences has long been a difficult one. Third, much of the application of knowledge to solving problems does not and cannot occur through the development of products and processes. The category of "development" therefore provides little insight into a discussion of the social R&D system. For these reasons, the traditional R&D framework did not capture the many dimensions and concerns that gave rise to the Study Project's work.

A major goal of the Study Project survey was to better describe the diverse set of activities associated with social R&D and social problems. Particularly troublesome was the concept of "development" when applied to the social sciences and social problems. Development has long posed problems for those interested in federal support of the social sciences. The 1968 BASS report[2] did not confront the question of development directly, but instead estimated that 1 percent of all development was probably "social." Since development is considered to be a nondisciplinary activity, it has not been possible to know how much of the dollar total reported to NSF and OMB as "development" was related to the social sciences or social problems. In 1968, the Reuss Committee summed up the problem well:

> In seventeen years, the Foundation has not decided if it is, or is not, possible to spend any money on "development" in the social sciences (a category that absorbs more than half of all agency expenditures in other areas of "R" *and* "D") but, while NSF continues to make up its mind, some agencies do, and others do not, report "demonstration" projects as "social science research."[3]

Domestic Programs, 90th Congress, 1st Session, Part 1, 1967). This study used a very broad definition of both social science and research and included general purpose statistics. Using this broad definition, the study reported that federal expenditures exceeded $210 million in 1963.

[2] A study sponsored by the National Research Council and the Social Science Research Council, called *The Behavioral and Social Sciences: Outlook and Needs*, estimated that in 1967 the federal government spent $388 million on basic research, applied research, and development.

[3] U.S. Congress, House, Committee on Government Operations, *The Use of Social Research in Federal Domestic Programs*, 90th Congress, 1st Session, Part 1, 1967.

DEFINITION OF SOCIAL KNOWLEDGE PRODUCTION AND KNOWLEDGE APPLICATION ACTIVITIES

Knowledge Production

Research Research is systematic, intensive study directed toward greater knowledge or understanding of the subject studied. Social research includes basic, applied, or policy research that studies either the behavior of individuals, groups, or institutions or the effects of policies, programs, or technologies on behavior.†

Demonstrations for Policy Formulation A demonstration is a small-scale program undertaken in an operational setting for a finite period of time to test the desirability of a proposed course of action. A demonstration for policy formulation is undertaken to learn new information about the outcomes and administrative feasibility of a proposed action. Social experiments are included in this category.

***Program Evaluation** Program evaluation is evaluation that seeks to systematically analyze federal programs (or their components) to determine the extent to which they have achieved their objectives. A distinguishing factor of program evaluation is that national operating programs (or their components) are evaluated for the use of agency decision makers in making policy or program decisions. Program evaluation is defined as a management tool; more general types of evaluation studies (activities frequently labeled evaluation research) were judged not to be oriented to management or decision making and were categorized as research.†

***General Purpose Statistics** General purpose statistics include either current or periodic data of general interest and use. A characteristic of general purpose statistics is that many of the specific users and uses are unknown. These statistics provide all levels of government and the private sector with information on a very broad spectrum of social, economic, and demographic topics. Statistics that are collected for the specific purpose of providing research data in a specific area of inquiry have been categorized as research.†

Knowledge Application

***Demonstrations for Policy Implementation** A demonstration is a small-scale program undertaken in an operational setting for a finite period of time to test the desirability of a proposed course of action. A demonstration for policy implementation is undertaken to promote the use of a particular action. This type of demonstration does not attempt to generate new information but instead attempts to apply existing knowledge.

Development of Materials The development of materials consists of the systematic use of knowledge and understanding gained from research to produce materials. Examples of such materials are educational curriculum materials or methods, testing instruments, and management or training curricula. Such materials are used in a variety of educational, training, or testing settings.†

***Dissemination** Dissemination consists of activities undertaken by research managers or others to promote the application of knowledge or data resulting from social knowledge production activities.† Dissemination activities include:

Publication and distribution of scientific and technical information resulting from social research;
Documentation, reference, and information services (information retrieval systems);
Research syntheses written for the use of practitioners and decision makers;
Technical assistance to practitioners to disseminate knowledge;
Support of conferences to disseminate information; and
Creation of dissemination networks and consortia.

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*The asterisked categories fall outside the definition of research and development used by the National Science Foundation and the Office of Management and Budget. This knowledge production and knowledge application framework can thus be viewed as containing social R&D and related activities.

†These definitions are similar to those used by the National Science Foundation and the Office of Management and Budget.

Development, as it relates to the social sciences and social problems, thus was a "black box" for the Study Project. It was clear that large amounts of funds were being reported to the NSF *Federal Funds* survey as development by agencies directly concerned with social problems, but little was known about the types of activities included under development. This problem is well illustrated by two agencies, the Office of Education and the Office of Human Development Services (previously called the Office of Human Development) in the Department of Health, Education, and Welfare. For fiscal 1976, both agencies reported almost 90 percent of their total R&D obligations as "development."[4] The Study Project wanted to find out what type of activities were classified as development by those agencies—demonstrations, curriculum development, or other types of activities. From its inception, the Study Project felt that one of its major tasks was to explore the concept of development and to better understand the types of activities categorized as development by agencies concerned with social problems.

For all these reasons, the Study Project decided to use a framework of knowledge production and knowledge application. It was felt that this framework is more descriptive of the activities actually being conducted and funded by the federal government in the area of social problems. The Study Project felt it necessary to collect its own data within this framework in order to probe the nature of the activities classified as research and development by federal agencies.

Another major factor in the decision to develop a new framework was the desire to include program evaluation and general purpose statistics in the survey. The inclusion of program evaluation reflects two major judgments. First, such evaluations have provided substantial insight into the effect of government policies and, to some extent, into the behaviors of citizens and institutions. Program evaluations have come to play an important role in our perceptions of social problems. Second, program evaluations frequently use social science methodology and represent substantial scientific endeavors. In addition, they have clearly come to be associated with the concept of social R&D, even though such activities are not included in the definition of research and development.

The collection, analysis, and publication of social statistics represent the oldest commitment of the federal government to activities that the

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[4] The figure cited for the Office of Human Development Services was based on volume 25 of the NSF *Federal Funds* survey. In volume 26, the fiscal 1976 figures were revised to 55 percent for research and 45 percent for development.

Study Project has characterized as social R&D. General purpose statistics enable us to describe and characterize our society. Beyond that, statistical data are the basis for a substantial amount of social research that seeks to provide insight into the behavior of society, including, for example, the economic statistics that underlie models of the economy, the data used to study migratory trends, and the information needed to study patterns of fertility and shifts in the patterns of family structure.

DEFINITIONS OF CATEGORIES USED IN THE SURVEY

THE CONCEPT OF "SOCIAL"

Social R&D consists of research and development and related activities concerned with understanding and alleviating social problems. It is intended to include such activities as the production or application of knowledge concerning the behavior of individuals, groups, or institutions or the effects of policies, programs, or technologies on behavior.

This definition excludes biomedical or technological developments in which only minor attention is given to social or individual impacts. Under this definition, a project that assesses an existing technological capability for its impact on behavior would be considered social, while a project primarily attempting to develop a new technology would not. As might be imagined, the definition leaves considerable room for judgment, but the Study Project found that interviewers and agency personnel could reach agreement after some discussion on the distinction between social and nonsocial. The boundary issue was not as big a problem as originally anticipated.

CATEGORIES OF KNOWLEDGE PRODUCTION

Research Research is systematic, intensive study directed toward greater knowledge or understanding of the subject studied. Social research was defined as including basic, applied, or policy research that studies either the behavior of individuals, groups, or institutions or the effects of policies, programs, or technologies on behavior.

The first part of this definition is similar to the one used by NSF and OMB. The Study Project, however, did not attempt to make the distinction between basic, applied, or policy research—a decision that was greeted with enthusiasm by the agency staff. The distinction between basic and applied is frequently difficult to make in any field but seems to be particularly difficult in the behavioral and social sciences.

While research is typically reported by discipline, the Study Project was interested in activities related to problems. Because of this, we included research on social problems that was carried out in disciplines other than social science and psychology. The definition of social research cited above emphasizes the problem being studied rather than the discipline studying it. Thus, the Study Project total for research activities is higher than the NSF figure for total (basic and applied) research in the social sciences and psychology. The Study Project research total includes some multidisciplinary research that is categorized by NSF in its various NEC (not elsewhere classified) categories. (For data on federal obligations by academic discipline, NSF provides the best data available.)

Over 85 percent of the Study Project's research total was reported to the NSF *Federal Funds* survey. The remaining 15 percent was not reported, because either the individual agencies spending the funds do not report to NSF or the activities were not considered "research" by the agencies.[5]

Policy Formulation Demonstrations A demonstration is a small-scale program undertaken in an operational setting for a finite period of time to test the desirability of a proposed course of action. A demonstration for policy formulation is undertaken to learn new information about the outcomes and administrative feasibility of a proposed action. Social experiments are included in this category.

This definition was developed by the Study Project. Policy formulation demonstrations are funded to generate new information relating to the cost, the demand, and the institutional compatibility of a particular action or concept in a local setting. In general, the knowledge to be gained from policy formulation demonstrations has two dimensions: the impact and the feasibility of the proposed action.

The impact of a programmatic concept is the capacity of the concept or approach to produce the desired effect on a target population as well as the unexpected medical, social, economic, or demographic external effects. Appraisal of the political and administrative feasibility of the programmatic concept is also studied. Feasibility indicates the capacity of the political and administrative system to bear the new programmatic concept. It also indicates whether the new concept can be provided in a cost-effective way.

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[5] Fourteen agencies do not report any of their activities as either "research" or "development" to the NSF *Federal Funds* survey. The 14 agencies are: Appalachian Regional Commission, Commission on Civil Rights, Equal Employment Opportunity Commission, Council of Economic Advisers, Council on Environmental Quality, Council on Wage and Price Stability, Federal Mediation and Conciliation Service, Federal Power Commission, Federal Reserve System, International Trade Commission, Interstate Commerce Commission, National Foundation on the Arts and Humanities, the National Center for Productivity and Quality of Working Life, and the Securities and Exchange Commission. Although these agencies do not report any R&D expenditures, some of their activities clearly fit our definition of social knowledge production and application.

When the concept of policy formulation demonstrations was explained to agency personnel, it was quickly understood. Approximately 50 percent of this category was reported to NSF as development; another 25 percent was reported as research;[6] the remaining 25 percent was not reported at all. It is clear that each agency handles this type of demonstration differently. However, over 75 percent of all policy formulation demonstrations was categorized by agency personnel as fitting the traditional definition of research and development.

Program Evaluation Program evaluation is evaluation that seeks to systematically analyze federal programs (or their components) to determine the extent to which they have achieved their objectives. A distinguishing factor of program evaluation is that national operating programs (or their components) are evaluated for the use of agency decision makers in making policy or program decisions. Program evaluation is defined as a management tool. More general types of evaluation studies (activities frequently labeled evaluation research) were judged not to be management- or decision-oriented and have been categorized as research.

This definition borrows heavily from the one developed by the Evaluation and Program Implementation Division of OMB.[7] The line between research and evaluation appears to be very thin in many agencies. Because the term evaluation is used very loosely across the government, many traditional research activities are called evaluation. In its definition the Study Project emphasized the evaluation of federal programs; the number of "evaluation" projects reported to the Study Project was thus reduced considerably.

While some agencies have activities labeled "program evaluation," most do not. When activities are clearly labeled program evaluation, they do not seem to be reported to the NSF survey.

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[6] Because 25 percent of all policy formulation demonstrations were reported to NSF as research, roughly $50 million could be added to the Study Project research total if "research" policy formulation demonstrations were counted as research. This would bring the Study Project research total to over $750 million in fiscal 1977. Social experiments are the type of policy formulation demonstrations most closely linked to research and were categorized by the Study Project as policy formulation demonstrations and not research.

[7] See OMB, "Evaluation Management: A Background Paper," May 1975.

The Study Project figure of $68 million for program evaluation may strike some readers as too low. In September 1977, OMB published a figure of $200 million for evaluation.[8] There are two likely explanations for this discrepancy. First, the OMB figure appears to include funds for research activities that have been inappropriately categorized as evaluation. When asked for evaluation dollars only, most agencies tend to use a broad definition of evaluation and include dollars categorized by the Study Project as research. Second, the OMB figure may include management efficiency evaluations, which are not aimed at assessing the impact of federal programs. Efficiency studies were excluded from the Study Project definition.

General Purpose Statistics General purpose statistics include either current or periodic data of general interest and use. A characteristic of general purpose statistics is that many of the specific users and uses are unknown. These statistics provide all levels of government and the private sector with information on a very broad spectrum of social, economic, and demographic topics. Statistics that are collected for the specific purpose of providing research data in a specific area of inquiry have been categorized as research.

This definition is the one used by the Statistical Policy Division of OMB.[9] The Study Project excluded program or administrative data from the survey because they are collected as part of an agency's administrative and operating responsibilities and do not serve a knowledge production function.

Statistics falls clearly outside the definition of research and development used by the federal government. As expected, general purpose statistics are largely not reported to NSF as R&D. There are several exceptions, notably longitudinal and research-oriented data collections by nonstatistical agencies.

CATEGORIES OF KNOWLEDGE APPLICATION

Policy Implementation Demonstrations A demonstration is a small-scale program undertaken in an operational setting for a finite period of time to test the desirability of a proposed course of action. A demonstration for policy implementation is undertaken to promote the use of a particular action. This type of demonstration does not attempt to generate new information but instead attempts to apply existing knowledge.

In contrast to policy formulation demonstrations, policy implementation demonstrations imply a conscious decision on the part of federal officials to promote the application of an already accepted practice. The generation of new knowledge is not sought. The decision to promote a given program or practice may be based on the knowledge gained by a policy formulation demonstration, or that stage may be skipped because no further testing or knowledge generation is considered necessary by policy makers.

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[8] See OMB, "Resources for Program Evaluation Fiscal 1977," September 1977.

[9] See OMB, *Statistical Services of the United States Government*, 1975, p. 23.

Policy implementation demonstrations can be termed "show and tell" demonstrations, whose purpose is simply to demonstrate in a real environment the institutional and procedural changes that can be made and draw attention to exemplary practices or program delivery methods.

As with policy formulation demonstrations, the concept of a policy implementation demonstration was quickly understood by agency personnel. With few exceptions, the individuals surveyed agreed with the distinction between the two types of demonstrations.

Over two-thirds of the funds obligated for policy implementation demonstrations are not reported as either research or development to the NSF *Federal Funds* survey. In general, then, this type of demonstration seems clearly not to be considered R&D by federal agencies. However, the one-third of the funds for policy implementation demonstrations reported to the NSF as development indicates that the classification of demonstrations and development in social areas is ambiguous at best.

Development of Materials The development of materials consists of the systematic use of knowledge and understanding gained from research to produce materials. Examples of such materials are educational curriculum materials or methods, testing instruments, and management/training curricula. Such materials are used in a variety of educational, training, or testing settings.

In contrast to policy implementation demonstrations, over two-thirds of the total funds for this activity is reported to NSF as development. Development of materials is one of the three Study Project categories (research and policy formulation demonstrations are the other two) that fit the traditional definition of research and development. This category represents the one area of social science activity that can truly be termed "development," as tangible products are produced.

Dissemination Dissemination activities consist of action undertaken by research managers to promote the application of knowledge or data resulting from the conduct of social knowledge production activities. This group of activities encompasses the dissemination of information in recorded or other communicable form that presents the status, progress, or results of social knowledge production activities. Dissemination activities include:

- Publication and distribution of scientific and technical information
- Documentation, reference, and information services (information retrieval systems)
- Research synthesis written for the use of practitioners and decision makers
- Technical assistance to practitioners to disseminate knowledge
- Support of conferences to disseminate information and innovations
- Creation of dissemination networks and consortia

A variety of activities have been subsumed under this heading, all of which clearly fall outside the definition of R&D. NSF has classified scientific and technical information (or STINFO) as a "related activity" to R&D. The Study Project definition of dissemination goes far beyond the concept of STINFO. Hence the funds reported to NSF as STINFO account only for a small portion of the dissemination total in the Study Project survey. Other dissemination activities included in the survey are:

Publication and distribution of social scientific and technical information. This group of activities includes the publication and distribution of journals, technical reports, conference proceedings, monographs, and other materials that disseminate the results of social R&D.

Documentation, reference, and information services (information retrieval systems). This group of activities includes library and reference services as well as specialized information center services that serve to disseminate and make available the results of social R&D.

Research syntheses for the use of practitioners and decision makers. These are studies funded by an agency to synthesize a set of research studies or findings in a given problem area. The final result of these efforts is often directed at practitioners in the field or governmental decision makers.

Technical assistance to disseminate knowledge. This is assistance either funded or provided by federal research managers to promote knowledge utilization by personal contact with practitioners or decision makers.

Support of conferences to disseminate information and innovations.

Creation of dissemination networks and consortia. Some funding agencies have attempted to build a capacity for dissemination at the state or local level. A network or consortium is created to disseminate knowledge to practitioners or decision makers in a given field.

The Study Project's dollar total for dissemination is probably on the low side. The obligations for dissemination represent only separate, identifiable projects aimed at dissemination. If funds for dissemination are included in a research grant, agencies are unable to separate funds for dissemination from funds for the research grant itself. In the case of general purpose statistics, funds for dissemination are included in the agency appropriations for "statistical collection" and thus cannot be isolated.

More than 50 percent of the Study Project total for dissemination activities, nearly $165 million, is funded by the Agricultural Extension Service. After extensive interviews with the agency staff, it was decided that the activities of the service were largely social and fit the definition (cited above) of technical assistance used by the Study Project. The remaining activities of the service include the dissemination of scientific agricultural information and were excluded from the Study Project survey totals.

SUMMARY ANALYSIS OF STUDY PROJECT CATEGORIES

Survey interviews found that three of the seven knowledge production and application categories—research, policy formulation demonstrations, and development of materials—were categorized as either research or development by agency personnel. Those three categories were usually reported to the NSF *Federal Funds* survey. Study Project interviews found that the other four categories were generally considered outside the traditional definition of R&D and not reported to the NSF survey. The only exception was policy implementation demonstrations, which was treated inconsistently by agency staff.

Based on these observations, one can estimate a total for "social R&D" in contrast to "social knowledge production and application." The three categories included in the traditional definition of R&D give a total of approximately $1 billion for social R&D in fiscal 1977. The four "related activities" categories total an additional $874 million. Adding the figures for "social R&D" and "related activities," one gets a total of $1.8 billion for social knowledge production and application in fiscal 1977. Aggregate Study Project survey totals are presented in more detail in Chapter 3.

CLASSIFICATION BY POLICY AREAS

The Study Project devoted much time to developing the policy areas used in the survey. Instead of adapting functional categories already in use by OMB or NSF, the Study Project developed a set of categories that are closer to those recently proposed by the General Accounting Office and the House Budget Committee and that incorporate elements of both existing and proposed systems of classification.[10]

Faced with the choice of developing a classification system using either broad policy areas or more detailed ones, the Study Project opted for broad categories and kept subcategories to a minimum. Broad policy areas were selected, first, because a detailed classification system was deemed more appropriate for project-level data, and the Study Project survey was based on program-level data. Second, policy areas were an important but secondary concern of the Study Project survey; greater emphasis was placed on collecting data by the knowledge production and application categories.

Like most classifications of policy areas, the Study Project categories are far from perfect. Many R&D projects and programs can easily fall into several policy areas. Most have both a primary and secondary policy focus. A related problem is that the predominant mission of an agency tends to dominate. Thus, "R&D" programs funded by the Department of Transportation, for example, tend to be categorized as "transportation" even though the secondary focus of those programs or projects might be the environment or employment patterns.

All problems notwithstanding, the data collected on policy areas by the Study Project provide some sense of the relative investments in social knowledge production and application in different policy areas. Rather than attempt to "define" the 12 policy areas used in the survey, the Study Project instead wrote broad descriptions of each policy area, listing the topics or issues most likely to come under each heading. The Study Project did not define a distinct policy area for "defense" since it felt that defense activities fell outside its definition of social problems. However, the Department of Defense was included in the survey and its activities are classified under the appropriate policy areas.

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[10] Explanations of the GAO and House Budget Committee categories can be found in General Accounting Office, *Need for a Government-wide Budget Classification Structure for Federal Research and Development Information*, PAD-77-14 and PAD 77-14A, March 3, 1977; and House Budget Committee, "Working Paper of the House Budget Committee: Recommendations for Improving the Budget Functional Categories," Draft, July 2, 1976 (an earlier version of this paper appeared in the *Congressional Record*, H 929, February 10, 1976).

HUMAN RESOURCES

Health

Health is one of the two policy areas for which data were collected by subcategories: health education; health care delivery and services; prevention and control of health problems; mental health; substance abuse prevention and rehabilitation; food and nutrition; and miscellaneous. (Biomedical research was excluded as falling outside "social R&D.")

Education

The education category includes knowledge production and application activities on: preschool education (day care, etc.); elementary, secondary, and higher education; vocational and occupational education; education for the handicapped; basic research on education; educational service delivery (education finance and school administration); adult education; and cultural affairs. Health education activities were included in the health category, and science education activities were included in the science and technology base category.

Employment and Training

The employment and training category includes knowledge production and application on: job training or retraining programs; the delivery of training programs; employment statistics; equal employment opportunities; programs aimed at upgrading skills and increasing participation and usefulness in the labor force; pension programs; etc. Vocational education was classified in the education policy area. The proposed budget classification of the General Accounting Office contains this category, whereas existing classification systems do not.

Social Services and Income Security

The social services and income security category includes knowledge production and application on: the delivery of social services; rehabilitation services; legal services; research and demonstrations on target populations (children, the elderly, minorities); unemployment insurance; retirement and disability insurance; public assistance and income supplements (food stamps); veterans' benefits; and the delivery of income security programs. Knowledge production and application activities on housing assistance were included in the housing and community development category.

COMMUNITY RESOURCES

Economic Growth

The economic growth category consists primarily of general purpose economic and demographic statistics and research on fiscal, monetary, and tax policy. Research on productivity, economic development, and business and commerce is also included. This is the only policy area in the Study Project's classification that does not have a comparable budget function in any of the proposed budget classifications.

Transportation

The transportation category includes knowledge production and application on: transportation safety; public transportation systems; transportation patterns; and the socioeconomic aspects of transportation programs and policies. The small amount of research on telecommunication policy was included in this category.

Housing and Community Development

The housing and community development category includes knowledge production and application on a wide range of related topics: rural housing and development; disaster prevention and relief; area and regional development; housing economics and finance; housing assistance programs; community growth; land use control techniques; intergovernmental relations; and revenue sharing.

Law Enforcement and Justice

The law enforcement and justice category includes knowledge production and application on: the criminal justice system (police, courts, corrections); federal law enforcement; the prevention and causes of crime; drug law enforcement; etc.

International Affairs

The international affairs policy area includes knowledge production and application on: international development; foreign trade; and arms control and disarmament. Some of the activities of the Agency for International Development (AID) were categorized in this policy area, but other AID activities were categorized in education, health, or other policy areas as appropriate.

NATURAL RESOURCES

Natural Resources and the Environment

The natural resources and environment category includes knowledge production and application on the social aspects of: recreational resources; conservation and land management; pollution control and abatement; environmental regulations; water resources; etc. Technological research on improving the environment was excluded.

Energy Development and Conservation

The energy development and conservation category includes knowledge production and application on the social aspects of: energy conservation; the regulation of energy; energy modeling; supply and demand studies; etc.

SCIENCE AND TECHNOLOGY BASE

This category consists primarily of the science education, science policy, and the basic social science research activities of NSF. Basic social science research in other departments was also included in this category.

CLASSIFICATION BY ORGANIZATIONAL LOCATION

The Study Project was also interested in finding out the organizational location of units that support social knowledge production and application activities. It did this by classifying the types of organizations in which social knowledge production and application funding programs were located. The following categorization was used in analyzing social knowledge production and application funding programs:

Associated with operating programs. These offices have programmatic responsibility to administer federal programs—for example, the Food and Nutrition Service (Agriculture); the Economic Development Administration (Commerce); the Office of Education (Health, Education, and Welfare); the National Park Service (Interior); and the Federal Highway Administration (Transportation).

Associated with policy-making offices. These offices frequently have oversight responsibility for a number of federal programs or have staff advisory responsibility for nonprogrammatic federal policies—for example, the Office of the Assistant Secretary for Planning and Evaluation (Health, Education, and Welfare); the Advisory Commission on Intergovernmental Relations; the U.S. Commission on Civil Rights; and the Council of Economic Advisers.

Associated with agencies whose primary mission is R&D funding. For example, the National Institute of Education (Health, Education, and Welfare); the Agricultural Research Service (Agriculture); the National Center for Health Services Research (Health, Education, and Welfare); and the National Science Foundation.

Associated with agencies whose primary mission is the collection and/or analysis of statistics. For example, the Statistical Reporting Service (Agriculture); the Bureau of the Census (Commerce); the National Center for Education Statistics (Health, Education, and Welfare); and the National Criminal Justice Information and Statistical Service (Law Enforcement Assistance Administration/Justice).

CLASSIFICATION BY GOALS OR AUDIENCE

The Study Project also sought to find out more about the goals and audiences of social knowledge production and application activities. To describe these goals and audiences, the Study Project used programs as the unit of analysis and devised a classification of the objectives of the funding agencies:

- the improvement of federal programs;
- the improvement of federal policies;
- the creation and provision of knowledge and developed programs or materials to nonfederal audiences—knowledge for third parties;

- the general advancement of knowledge concerning individual and social behavior without specific concern for application; and
- the collection and analysis of statistics.

This categorization proved to be substantially more difficult and judgmental than the categorization according to organizational location and function. For example, the National Institute of Mental Health (NIMH) supports considerable basic disciplinary research as well as research centered on a variety of social and mental health problems. It also supports a significant amount of research that is intended to be useful to practitioners in community mental health centers, social service agencies, and third parties generally. Although some of the rhetoric surrounding the NIMH program emphasizes the latter activity, the Study Project concluded the predominant function of NIMH to be the advancement of knowledge and classified the agency accordingly.[11] In agencies with more than one goal or audience, the Study Project sought to classify the predominant one.

ADDITIONAL SOURCES OF INFORMATION

RESEARCH AND DEVELOPMENT—GENERAL

National Science Foundation Surveys of Science Resources Series (publication list available from National Science Foundation, Washington, D.C. 20550).

Research and Development Report, vols. 1, 2, and 3, published by the American Association for the Advancement of Science (available from AAAS, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036).

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Baer, W. S., et al., *Analysis of Federally Funded Demonstration Projects: Final Report*, R-1926-DOC, Rand Corp., Santa Monica, Cal., April 1976.

Glennan, T. K., et al., *The Role of Demonstrations in Federal R&D Policy*, Rand Report R-2288-OTA, Rand Corp., Santa Monica, Cal., May 1978 (report prepared for the Office of Technology Assessment and available from OTA).

[11] Clearly, the Study Project would have gained added information on goals and audiences by carrying the analysis to the level of individual projects if this had been feasible.

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Riecken, H. W., and Robert F. Boruch, eds., *Social Experimentation: A Method for Planning and Evaluating Social Intervention*, Academic Press, New York, 1974.

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General Accounting Office, *Federal Program Evaluations, A Directory for the Congress*, 1976 Sourcebook Series, U.S. Government Printing Office, Washington, D.C., 1976.

Schmidt, R. E., et al., *Serving the Federal Evaluation Market*, Urban Institute, Washington, D.C., 1977 (for a list of Urban Institute papers on program evaluation, write Urban Institute, 2100 M Street, N.W., Washington, D.C. 20037).

A Symposium on the Use of Evaluation by Federal Agencies, vol. 1 and 2, a report of the Metrek Division, Mitre Corp., 1820 Dolley Madison Boulevard, McLean, Va. 22101.

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Office of Management and Budget, *Federal Statistical Directory*, 25th ed., U.S. Government Printing Office, Washington, D.C., 1976.

Office of Management and Budget, *Statistical Services of the United States Government*, revised ed., U.S. Government Printing Office, 1975.

Statistical Reporter, monthly publication of the Office of Federal Statistical Policy and Standards, Department of Commerce (single copies or subscriptions available from the U.S. Government Printing Office).

DISSEMINATION

Directory of Federal Technology Transfer, 2nd ed., Executive Office of the President, Federal Coordinating Council for Science, Engineering and Technology, U.S. Government Printing Office, June 1977.

Putting Knowledge to Use: A Distillation of the Literature Regarding Transfer and Change, Human Interaction Research Institute, 10889 Wilshire Boulevard, Los Angeles, Cal. 90024.

U.S. Congress, House, Committee on Science and Technology, Subcommittee on Domestic and International Scientific Planning and Analysis, *Intergovernmental Dissemination of Federal Research and Development Results*, 94th Congress, 1st session.

3 The Scope of the Federal Investment

KNOWLEDGE PRODUCTION AND APPLICATION CATEGORIES

In fiscal 1977, federal obligations for the seven categories of social knowledge production and application totaled $1.8 billion. Table 3-1 presents the totals and distribution of the categories for three fiscal years. Federal funds for social knowledge production and application increased 10 percent between fiscal 1975 and fiscal 1976; the increase between fiscal 1976 and fiscal 1977 was 4 percent. Caution should be used in interpreting fiscal 1977 figures, as they were based on the President's fiscal 1977 budget request and do not represent subsequent changes that occurred due to congressional actions or agency reprogramming.

The largest single category of knowledge production and application is research (basic, applied, and policy research), which accounted for over $700 million, 37 percent of total federal obligations for social knowledge production and application in fiscal 1977. While research accounts for more than one-third of the total funds, it does not dominate knowledge production and application obligations as one might expect from the emphasis that research activities have traditionally received in reports on the social sciences. By enlarging the knowledge production framework to include activities other than research—one type of demonstration, program evaluation, and general purpose statistics—the total for knowledge production becomes $1.2 billion, or 67 percent of the fiscal 1977 social knowledge production and application total—almost double the research total.

TABLE 3-1 Distribution of Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	585.6	655.3	701.0
	(35.6)[a]	(36.2)	(37.1)
Policy formulation demonstrations	209.7	204.0	199.4
	(12.7)	(11.2)	(10.5)
Program evaluation	52.5	61.7	63.6
	(3.2)	(3.4)	(3.4)
General purpose statistics	239.3	293.6	313.7
	(14.5)	(16.2)	(16.6)
Total	1,087.1	1,241.6	1,277.7
	(66.0)	(67.0)	(67.6)
Knowledge application			
Policy implementation demonstrations	152.4	183.2	178.9
	(9.3)	(10.1)	(9.5)
Development of materials	121.2	121.4	114.4
	(7.4)	(6.7)	(6.1)
Dissemination	286.1	293.5	317.7
	(17.3)	(16.2)	(16.8)
Total	559.7	598.1	611.1
	(34.0)	(33.0)	(32.4)
TOTAL	1,646.8	1,812.7	1,888.8
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

The survey found that the two demonstration categories accounted for nearly 20 percent of the total knowledge production and application funds. Funds for demonstrations were almost equally divided between policy formulation demonstrations (knowledge production) and policy implementation demonstrations (knowledge application). The role of demonstrations as a means of gaining new knowledge or applying existing knowledge had received little, if any, attention in the previous social science studies. The inclusion of demonstrations in the framework represents a major departure from previous studies and surveys. Data on social, nontechnological demonstrations have been difficult to obtain in the past.

Just as the Study Project felt that there are many ways to gain knowledge, it felt that there are several different ways in which knowledge can be applied. Traditionally, these activities—with the exception of the development of materials—have been excluded from R&D figures.

The survey found that over $600 million was spent on knowledge application activities in fiscal 1977—nearly 33 percent of the total obligations for social knowledge production and application for that year. The 2:1 ratio of knowledge production to knowledge application remained fairly steady from fiscal 1975 to fiscal 1977. The small percentage decrease in knowledge application for fiscal 1977 is explained by a decline in federal support for the development of curriculum materials.

The overall ratio for the federal government of 2:1, knowledge production to knowledge application, is distorted by two agencies—the Office of Education and the Agricultural Extension Service. These two agencies combined obligated $288 million for knowledge application activities in fiscal 1977, over 45 percent of the government's total. Without the large total for knowledge application of those two agencies, the overall ratio of knowledge production to knowledge application for the federal government would be closer to 4:1.

POLICY AREAS

Table 3-2 presents the distribution of obligations for social knowledge production and application by policy area.[1] The largest policy area is health, accounting for over $440 million in fiscal 1977, nearly one-fourth of the total. The second largest category was education, accounting for almost $400 million, or 20 percent of the social knowledge production and application total.[2] The four policy areas under human

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[1] A more detailed discussion of the policy areas used by the Study Project is found in Chapter 2 of the final report of the Study Project, *The Federal Investment in Knowledge of Social Problems.*

[2] The education policy area is discussed in detail in three publications of the National Institute of Education R&D System Support Division:

Technical Report No. 1, 1975 Federal Funding for Education Knowledge Production and Utilization: A Composite Estimate, by Agency, Using Four Data Bases
Technical Report No. 2, Federal Funding for Education Knowledge Production and Utilization: KPU Function, by Agency
Technical Report No. 3, 1975 Federal Funding for Education Knowledge Production and Utilization: Project Content and Performer, by Agency

The data presented in the first two studies are based on the Study Project survey, but the National Institute of Education recombined several categories to develop a knowledge production and utilization framework. The three reports can be obtained from R&D System Support Division of the National Institute of Education, 1200 19th Street, N.W., Washington, D.C. 20036.

TABLE 3-2 Distribution of Social Knowledge Production and Application Obligations by Policy Area ($millions)

Policy Area	Fiscal 1975	Fiscal 1976	Fiscal 1977
Human resources			
Health	427.5	435.9	437.3
	(25.9)[a]	(24.0)	(23.1)
Education	361.6	393.6	395.1
	(22.0)	(21.7)	(20.9)
Employment and training	118.9	138.7	162.3
	(7.2)	(7.7)	(8.6)
Income security and	98.5	112.4	109.4
social services	(6.0)	(6.2)	(5.8)
Total	1,006.6	1,080.6	1,104.1
	(61.1)	(59.6)	(58.4)
Community resources			
Economic growth	183.2	206.2	223.6
	(11.1)	(11.4)	(11.8)
Housing and community	87.4	106.1	110.9
development	(5.3)	(5.9)	(5.9)
Transportation and	94.4	113.6	122.9
communication	(5.7)	(6.3)	(6.5)
Law enforcement and justice	48.2	65.2	61.2
	(2.9)	(3.6)	(3.2)
International affairs	20.4	22.9	24.7
	(1.2)	(1.3)	(1.3)
Total	433.6	514.1	543.4
	(26.3)	(28.4)	(28.7)
Natural resources			
Natural resources and environment	100.4	114.3	118.7
	(6.1)	(6.3)	(6.3)
Energy development and	10.4	29.5	39.4
conservation	(0.6)	(1.6)	(2.1)
Total	110.8	143.8	158.1
	(6.7)	(7.8)	(8.4)
Science and technology base	95.8	74.1	83.3
	(5.8)	(4.1)	(4.4)
TOTAL	1,646.7	1,812.7	1,888.8
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

resources account for nearly 60 percent of the total. The large size of the economic growth policy area, the third-largest category, is explained by the inclusion of the social statistics of the Bureau of the Census in that category.

Spending on social knowledge production and application in each of the policy areas was relatively stable over the three-year period. Nine of the twelve policy areas showed dollar increases, although these increases were usually small. Only three policy areas (law enforcement and justice, science and technology base, and social services and income security) showed dollar decreases over the three-year period. The decrease in the science and technology base policy area is due largely to severe cuts in the curriculum development activities of NSF.

The energy policy area had the largest percentage increase, more than 200 percent. The small figure in fiscal 1975 is due in part to the fact that figures were not available for the Energy Research and Development Administration (ERDA) for that year; ERDA was created in mid-fiscal 1975. The survey was also unable to obtain figures for that year for the Atomic Energy Commission.

Other policy areas that showed much growth between fiscal 1975 and fiscal 1977 are employment and training (36 percent) and transportation (30 percent). The increase in the employment area occurs primarily in the Bureau of Labor Statistics and the Department of Defense's employment and training activities. The increase in transportation is accounted for by an increase in the social knowledge production and application activities of the Department of Transportation.

MAJOR AGENCY FUNDERS OF SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION

Table 3-3, which presents the ranking of cabinet departments and independent agencies by their fiscal 1977 obligations, provides a sense of the degree of concentration of social knowledge production and application. The 5 largest departmental funders—the Departments of Health, Education, and Welfare; Agriculture; Commerce; Labor; and Transportation—account for more than 70 percent of the government's total obligations for social knowledge production and application. The remaining 30 percent is spread over the other 7 cabinet departments and 42 independent agencies.

Table 3-4 presents the 25 largest agency funders of social knowledge production and application. Nine of the 25 agencies are in the Depart-

TABLE 3-3 Ranking of Cabinet Departments and Independent Agencies by Social Knowledge Production and Application Obligations (fiscal 1977, $millions)

Department or Agency	Social Knowledge Production and Application Obligations
Cabinet departments	
1. Health, Education, and Welfare	717.9
2. Agriculture	285.7
3. Commerce	129.6
4. Labor	128.8
5. Transportation	109.8
6. Defense	70.8
7. Housing and Urban Development	68.4
8. Justice	60.9
9. Energy[a]	29.6
10. State	29.0
11. Treasury	25.9
12. Interior	13.3
Independent agencies	
1. National Science Foundation	99.9
2. Energy Research and Development Administration[b]	21.7
3. National Foundation for the Arts and Humanities	16.4
4. Environmental Protection Agency	12.8
5. Smithsonian Institution	12.4
6. Appalachian Regional Commission	11.5
7. Federal Reserve System	10.1
8. Commission on Civil Rights	8.2
9. Veterans Administration	5.8
10. Federal Energy Administration[b]	5.3

[a] The Department of Energy was not surveyed by the Study Project. Figure represents the social knowledge production and application obligations of the Energy Research and Development Administration, the Federal Energy Administration, and the Federal Power Commission. All three agencies were consolidated in the Department of Energy.

[b] Agencies consolidated into the Department of Energy.

ment of Health, Education, and Welfare, as might be expected due to its large obligations for social knowledge production and application. Four of the top 25 agencies are in the Department of Agriculture. This table also demonstrates the concentration of social knowledge production and application: the 25 largest agencies account for nearly 80 percent of the government's total knowledge production and application.

TABLE 3-4 Largest Agency Funders of Social Knowledge Production and Application (fiscal 1977, $millions)

Agency	Department	Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity
1. Office of Education	HEW	202.3	Demonstrations
2. Extension Service	Agriculture	161.0	Dissemination
3. National Science Foundation	Independent agency	99.9	Research
4. National Institute of Education	HEW	95.0	Research/ demonstrations
5. Bureau of the Census	Commerce	79.6	Statistics
6. Alcohol, Drug Abuse, and Mental Health Administration	HEW	79.5	Research
7. Office of Policy Development and Research	HUD	68.4	Demonstrations/ research
8. National Institutes of Health	HEW	68.1	Research
9. Office of Human Development Services	HEW	65.2	Research
10. Bureau of Labor Statistics	Labor	62.7	Statistics
11. Health Resources Administration	HEW	62.5	Research
12. Law Enforcement Assistance Administration	Justice	50.9	Research
13. Health Services Administration	HEW	45.4	Demonstrations
14. Occupational Safety and Health Administration	Labor	38.3	Demonstrations
15. Urban Mass Transportation Administration	Transportation	36.1	Demonstrations
16. Office of the Assistant Secretary for Planning and Evaluation	HEW	34.6	Demonstrations
17. Statistical Reporting Service	Agriculture	34.0	Statistics
18. Economic Research Service	Agriculture	31.9	Research
19. Social Security Administration	HEW	27.6	Research
20. National Highway Traffic Safety Administration	Transportation	27.4	Research
21. Agency for International Development	State	27.2	Research
22. Cooperative State Research Service	Agriculture	27.2	Research
23. Department of the Army	Defense	25.1	Research
24. Energy Research and Development Administration[a]	Independent agency	21.7	Research
25. Office of the Secretary	Transportation	20.0	Research

[a] Consolidated into the Department of Energy.

The 25 largest social knowledge production and application agencies represent the spectrum of agency types and agency missions. The 10 largest social knowledge production and application agencies include 4 operating agencies, 3 R&D agencies, 2 statistical agencies, and 1 office that is predominately policy-making in nature.

FUNDING PATTERNS[3]

Table 3-5, which presents aggregate totals by organizational location, shows the dominance of operating agencies in the funding of social knowledge production and application activities. Nearly 50 percent of all obligations for social knowledge production and application is made by operating agencies; the mission focus of social knowledge production and application is clearly seen. R&D agencies fund only 28 percent of the government's total social knowledge production and application. Examples of each type of agency are presented throughout this volume.

Table 3-6, which presents aggregate totals by agency goal or audience, shows the dominance of "third parties" as the major audience of federal social knowledge production and application activities. Over 50 percent of the government's social knowledge production and application obligations is aimed at nonfederal users—third parties, such as state and local government officials, school administrators, teachers, social workers, police officers, etc. The organizational location of social knowledge production and application activities might have led one to think that the bulk of federal spending is aimed at improving federal programs. The survey found, however, that much of the activity of operating agencies (such as the Office of Education and the Urban Mass Transportation Administration) and some R&D agencies (such as the National Institute of Education and the National Institute of Law Enforcement and Criminal Justice) is aimed at providing information to nonfederal users.

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[3] For a fuller discussion of the agency funding patterns, see Chapter 2 of the final report of the Study Project, *The Federal Investment in Knowledge of Social Problems*.

TABLE 3-5 Funding Patterns of Social Knowledge Production and Application by Organizational Location (fiscal 1977, $millions)

Organizational Location of Social Knowledge Production and Application Activity	Social Knowledge Production and Application Obligations	
	$	%
Associated with an operating program	939.6	49.7
Associated with a policy-making office	184.4	9.7
Associated with an agency whose primary mission is R&D funding	526.5	27.9
Associated with an agency whose primary mission is the collection and/or analysis of statistics	238.3	12.6
TOTAL	1,888.8	99.9

TABLE 3-6 Funding Patterns by Agency Goal or Audience (fiscal 1977, $millions)

Agency Goal or Audience	Social Knowledge Production and Application Obligations	
	$	%
Improvement of federal programs	267.4	14.1
Improvement of federal policies	191.1	10.1
Provision of knowledge for third parties	964.8	51.1
Advancement of knowledge	210.7	11.1
Collection and analysis of statistical data	254.8	13.5
TOTAL	1,888.8	99.9

II SURVEY OF FEDERAL AGENCIES

4 Department of Agriculture

The U.S. Department of Agriculture (USDA) is the second-largest cabinet-level funder of social knowledge production and application in the federal government, obligating more than $280 million in fiscal 1977. While the bulk of the department's research and development funds are devoted to agricultural research, it carries out a significant amount of social research and related activities.

In addition to its importance as the second-largest funder of social knowledge production and application, the department is important because of its unique pattern of R&D support, a pattern in which social research and related activities have been deeply intertwined. The department's support of social knowledge production and application has the following unique characteristics:

○ *A large proportion of the department's social research is conducted intramurally.* More than 70 percent of the department's total R&D in fiscal 1977 was performed intramurally, the largest percentage of any federal department. The department's social research follows a similar pattern.

○ *A high pr[illegible]n of the department's social knowledge production and application obligations is devoted to application activities.* More than 60 percent of the department's knowledge production and application obligations is for application activities, the highest proportion of any department surveyed by the Study Project. This reflects the department's long concern with the application and use of knowledge.

The department supports the only federal agency devoted exclusively to dissemination activities (the Extension Service).

○ *A significant amount of the department's social research is performed at local research units, called state agricultural experiment stations.* The department supported more than $27 million in social research at the 55 state agricultural experiment stations. No other federal department has fostered such a decentralized system.

USDA has served as a model for newer R&D ventures. When educational leaders established regional educational laboratories, the state agricultural experiment stations served as a precedent and model. When urban policy makers talked of starting university-based urban research centers, they looked to the relationship between land grant colleges and the agricultural community.

USDA has a long history of funding social research, collecting social statistics, and applying knowledge. As early as the 1870s, the department was collecting economic statistics and reporting on the health of rural families. During the 1920s, the department was already making systematic and sustained use of the social sciences.

The management of the agricultural sector of the national economy made it necessary for the department to institutionalize the use of economic analysis. In 1921, the department brought together several of its research units to form the Bureau of Agricultural Economics. The bureau was the leading social research agency in the federal government throughout the 1920s and 1930s. The bureau played a large role in encouraging the study of agricultural economics and rural sociology in universities. During this period, the bureau created the first unit in the federal government that used attitude and opinion surveys widely.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 4-1 presents the distribution of the department's social knowledge production and application activities.

The largest category, dissemination, includes the activities of the Extension Service and other USDA agencies. The amount, nearly $170 million in fiscal 1977, is nearly 60 percent of the department's total; no other federal department spends as large a portion of its knowledge production and application total on application. The department's $64.5 million spent for research activities makes USDA the third-largest research-supporting department or independent agency, ranking be-

TABLE 4-1 Department of Agriculture Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	54.9	62.1	64.6
	(20.8)[a]	(22.0)	(22.6)
Policy formulation demonstrations	0.1	0.2	0.4
		(0.1)	(0.1)
Program evaluation	4.6	2.6	5.7
	(1.7)	(0.9)	(2.0)
General purpose statistics	37.5	40.6	43.9
	(14.2)	(14.4)	(15.4)
Total	97.0	105.6	114.5
	(36.8)	(37.4)	(40.1)
Knowledge application			
Policy implementation demonstrations			
Development of materials	0.5	0.6	0.5
	(0.2)	(0.2)	(0.2)
Dissemination	166.2	176.2	170.6
	(63.0)	(62.4)	(59.7)
Total	166.7	176.8	171.2
	(63.2)	(62.6)	(59.9)
TOTAL	263.6	282.4	285.7
	(99.9)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

hind the Department of Health, Education, and Welfare and the National Science Foundation. The research activities are largely supported by two USDA agencies, the Economic Research Service and the Cooperative Extension Service. The Department also ranks third in the government in money obligated for general purpose statistics. The statistical activities take place primarily in two agencies, the Statistical Reporting Service and the Agricultural Marketing Service.

Three categories—research, general purpose statistics, and dissemination—dominate the department's social knowledge production and application activities. These three categories account for over 95 percent of the department's social knowledge production and application obligations.

Table 4-2 presents a list of the USDA agencies that fund social knowledge production and application activities. The table lists the agencies that have been consolidated into new units.

A striking feature of Table 4-2 is the number of agencies whose primary goal is the provision of knowledge for third parties; they account for over 70 percent of the agency's total knowledge production and application obligations. This emphasis on third parties points out a dominant feature of the department—its role in providing knowledge to a nonfederal audience. The importance of a strong nonfederal constituency has shaped the activities of the department and helps explain the efforts by the department to make local parties a major part of the USDA's R&D network.

ORGANIZATION OF THE DEPARTMENT

In October 1977, the Secretary of Agriculture announced a major reorganization of the department. The goal of the reorganization is to provide opportunities for better management by focusing responsibilities for similar functions in a smaller number of agencies and administrations. Figure 4-1 and Table 4-2 reflect the October 1977 reorganization.

Figure 4-1 presents an organizational chart of the department, with the major and minor funders of social knowledge production and application marked. The major funders of social knowledge production and application are centered around two organizational locations: the assistant secretary for conservation, research, and education and the director of agricultural economics, policy analysis and budget, who is equivalent in rank to assistant secretary. It can also be seen that the minor funders of social knowledge production and application are predominantly operating agencies outside the two major organizational units.

POLICY AREAS IN THE DEPARTMENT

Table 4-3 presents agencies that conduct social knowledge production and application activities by policy area.

The striking feature of the table is the number of policy areas in which the department is involved. Nearly half of the department's social knowledge production and application activities are in human resources (health, education, income security, and social services), a fact that reflects the department's concern for the social and physical

TABLE 4-2 Department of Agriculture Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency after Reorganization (Components Prior to Consolidation in Parentheses)	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Agriculture Marketing Service	12.2	General purpose statistics	Operating agency	Knowledge for third parties
Economic Research and Statistics Service	68.4			
(Economic Research Service)	31.9	Research	R&D agency	Improvement of federal policies
(Farmer Coöperative Service)	2.5	Research	R&D agency	Knowledge for third parties
(Statistical Reporting Service)	34.0	General purpose statistics	Statistical agency	Collection of statistics
Farm and Rural Development Administration	0.2			
(Farmers Home Administration)	0.1	General purpose statistics	Operating agency	Improvement of federal programs
(Rural Development Service)	0.1	Dissemination	Operating agency	Improvement of federal policies
Food and Agricultural Science and Education Administration	189.8			
(Extension Service)	161.1	Dissemination	Operating agency	Knowledge for third parties
(Cooperative State Research Service)	27.2	Research	R&D agency	Knowledge for third parties
(Agricultural Research Service)	1.6	Research	R&D agency	Knowledge for third parties
Food and Nutrition Service	6.2	Program evaluation	Operating agency	Improvement of federal programs
Forest Service	8.1	Research	Operating agency	Improvement of federal programs
Other agencies[b]	0.6	Research/ general purpose statistics	Operating agency	Improvement of federal programs
TOTAL	285.7			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

[b] Agricultural Stabilization and Conservation Service, Rural Electrification Service, and the Soil Conservation Service.

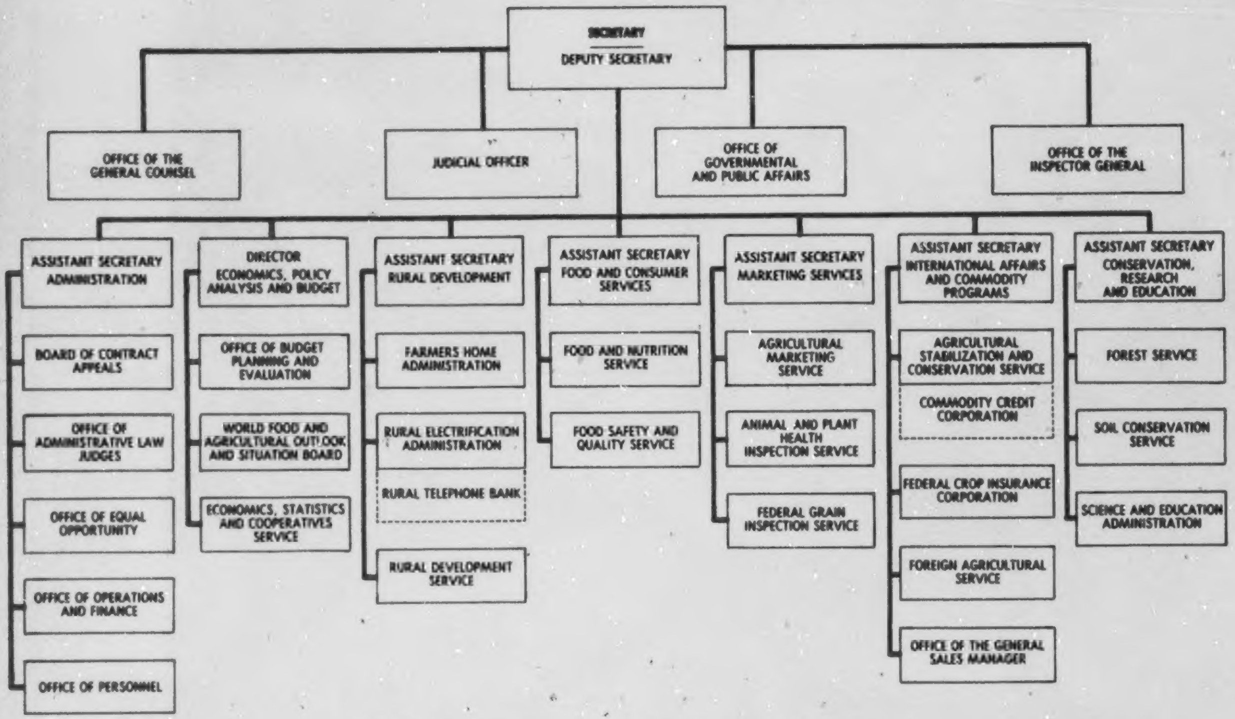

SECRETARY
DEPUTY SECRETARY
OFFICE OF THE GENERAL COUNSEL
JUDICIAL OFFICER
OFFICE OF GOVERNMENTAL AND PUBLIC AFFAIRS
OFFICE OF THE INSPECTOR GENERAL
ASSISTANT SECRETARY ADMINISTRATION
BOARD OF CONTRACT APPEALS
OFFICE OF ADMINISTRATIVE LAW JUDGES
OFFICE OF EQUAL OPPORTUNITY
OFFICE OF OPERATIONS AND FINANCE
OFFICE OF PERSONNEL
DIRECTOR ECONOMICS, POLICY ANALYSIS AND BUDGET
OFFICE OF BUDGET PLANNING AND EVALUATION
WORLD FOOD AND AGRICULTURAL OUTLOOK AND SITUATION BOARD
ECONOMICS, STATISTICS AND COOPERATIVES SERVICE
ASSISTANT SECRETARY RURAL DEVELOPMENT
FARMERS HOME ADMINISTRATION
RURAL ELECTRIFICATION ADMINISTRATION
RURAL TELEPHONE BANK
RURAL DEVELOPMENT SERVICE
ASSISTANT SECRETARY FOOD AND CONSUMER SERVICES
FOOD AND NUTRITION SERVICE
FOOD SAFETY AND QUALITY SERVICE
ASSISTANT SECRETARY MARKETING SERVICES
AGRICULTURAL MARKETING SERVICE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
FEDERAL GRAIN INSPECTION SERVICE
ASSISTANT SECRETARY INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS
AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE
COMMODITY CREDIT CORPORATION
FEDERAL CROP INSURANCE CORPORATION
FOREIGN AGRICULTURAL SERVICE
OFFICE OF THE GENERAL SALES MANAGER
ASSISTANT SECRETARY CONSERVATION, RESEARCH AND EDUCATION
FOREST SERVICE
SOIL CONSERVATION SERVICE
SCIENCE AND EDUCATION ADMINISTRATION

FIGURE 4-1 Department of Agriculture organizational chart.

TABLE 4-3 Department of Agriculture Agencies: Social Knowledge Production and Application Activities by Policy Areas (fiscal 1977, $millions)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
Agricultural Marketing Service												12.2 (100.0)		12.2 (100.0)		12.2 (100.0)
Agricultural Research Service						1.6 (100.0)					1.6 (100.0)					1.6 (100.0)
Cooperative State Research Service	0.5 (1.7)[a]	0.1 (0.2)			0.5 (1.9)	2.1 (7.6)	0.3 (1.3)				2.4 (8.9)	24.3 (89.3)		24.3 (89.3)		27.2 (100.0)
Economic Research Service						17.4 (54.5)	2.8 (8.9)			9.6 (30.2)	29.9 (93.6)	2.1 (6.4)		2.1 (6.4)		31.9 (100.0)
Extension Service	72.3 (44.9)	53.9 (33.5)			126.2 (78.4)	18.1 (11.3)	16.7 (10.3)				34.8 (21.6)					161.1 (100.0)
Farmers Cooperative Service		0.16 (6.1)			0.2 (6.1)	2.4 (93.9)					2.4 (93.9)					2.5 (100.0)
Food and Nutrition Service	1.9 (30.9)			4.3 (69.1)	6.2 (100.0)											6.2 (100.0)
Forest Service				1.5 (18.4)	1.5 (18.4)	2.7 (32.8)					2.7 (32.8)	4.0 (48.8)		4.0 (48.8)		8.1 (100.0)
Statistical Reporting Service												34.0 (100.0)		34.0 (100.0)		34.0 (100.0)
Other agencies[b]				0.2 (43.2)	0.2 (43.2)	0.1 (17.6)	0.2 (39.1)				0.2 (56.8)	0.4 (100.0)		0.4 (100.0)		0.8 (100.0)
TOTAL	74.7 (26.1)	54.1 (18.9)		6.0 (2.1)	134.8 (47.2)	44.3 (15.5)	20.0 (7.0)			9.6 (3.4)	74.0 (25.9)	76.9 (26.9)		76.9 (26.9)		285.7 (100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are row percentages.

[b] Agricultural Stabilization and Conservation Service, Rural Electrification Service, and Soil Conservation Service.

well-being of rural Americans. The remainder of the department's social knowledge production and application activities are split almost evenly between community resources (economic growth, housing and community development, international affairs) and natural resources. Activities concerned with economic growth consist primarily of the department's economic research.

Individual agencies within the department also have interesting profiles. The Extension Service spends nearly 45 percent of its funds on health, reflecting the service's activities in food and nutrition. The service also spends one-third of its funds on education.

For Further Information

During the past several years, the Department of Agriculture's system of R&D support has come under much scrutiny. While studies have not focused on the role of social research within the agricultural R&D system, the findings and recommendations are applicable to the agency's support of social research and related activities. For further information on the agricultural research and development system, see:

Special Oversight Review of Agricultural Research and Development, Report by the Subcommittee on Science, Research, and Technology and the Subcommittee on Domestic and International Scientific Planning and Analysis of the Committee on Science and Technology, U.S. House of Representatives, 94th Congress, 2nd session, Serial QQ, August 1976.

Agricultural Research and Development, Background Papers, Prepared for the Subcommittee on Science, Research, and Technology and the Subcommittee on Domestic and International Scientific Planning and Analysis of the Committee on Science and Technology, U.S. House of Representatives, 94th Congress, 1st session, Serial I, September 1975.

Agricultural Research and Development, Special Oversight Hearings, Part I, Hearings before the Subcommittee on Science, Research, and Technology and the Subcommittee on Domestic and International Scientific Planning and Analysis of the Committee on Science and Technology, U.S. House of Representatives, 94th Congress, 1st session, No. 11, June 1975.

Agricultural Research and Development, Special Oversight Hearings, Part II, Hearings before the Subcommittee on Science, Research, and Technology and the Subcommittee on Domestic and International Scientific Planning and Analysis of the Committee on Science and Technology, U.S. House of Representatives, 94th Congress, 1st session, No. 51, September and October 1975.

National Agricultural Research Policy Act of 1976, Hearings before the Committee on Agriculture, House of Representatives, 94th Congress, 2nd session, Serial 94-TT, February 1976.

World Food and Nutrition Study, Enhancement of Food Production for the United States, Report of the Board on Agriculture and Renewable Resources, National Academy of Sciences–National Research Council, Chapter 3, 1975.

For further information on the Department of Agriculture as a whole, see *List of Available Publications of the United States Department of Agriculture*, U.S. Government

Printing Office, Washington, D.C., or write Department of Agriculture, Fourteenth Street and Independence Avenue, S.W., Washington, D.C., 20250.

AGRICULTURAL MARKETING SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			5	10,015	10,020			1,238	1,238	11,258
1976			90	10,448	10,538			1,291	1,291	11,829
1977			90	10,809	10,899			1,336	1,336	12,235

The Agricultural Marketing Service (AMS) is the operating agency that assists producers and handlers of agricultural commodities through various marketing and regulatory activities; it is responsible for developing uniform standards of quality for agricultural products.

Program Evaluation

The agency conducts a small number of in-house evaluations of its marketing and regulatory programs. The evaluations, conducted by task forces comprised of staff from various USDA and government agencies, assess the degree to which programs accomplish their general purpose and the costs to various segments of the marketing system and recommend needed improvements in each program.

General Purpose Statistics

AMS, through its Market News Service, collects economic and marketing information on the supply, demand, movement, and prices of agricultural commodities. While the data collected by the agency are aimed at a specialized audience and could be classified as program or administrative data (a category excluded from social knowledge production and application), the Study Project felt that the Market News Service statistics serve as a major source of economic agricultural marketing data and can be used by a wider audience.

Dissemination

The data collected by the Market News Service are widely disseminated to the agricultural community by distribution through newspapers, radio, television, and direct mail.

For Further Information

Write Agricultural Marketing Service, Department of Agriculture, Washington, D.C. 20250.

ECONOMIC RESEARCH AND STATISTICS SERVICE

The October 1977 reorganization of the Department of Agriculture consolidated the functions of four agencies into one—the Economic Research and Statistics Service. The new agency will report to the director of economics, policy analysis, and budget. An earlier departmental reorganization increased the responsibilities of the director of agricultural economics to include responsibility for the Office of Budget, Planning, and Evaluation and the World Food and Agricultural Outlook and Situation Board. Table 4-4 presents the agencies that were combined to form the Economic Research and Statistics Service.

TABLE 4-4 Economic Research and Statistics Service (fiscal 1977, $millions)

Agencies Prior to Consolidation	Social Knowledge Production and Application Obligations
Economic Research Service	31.9
Farmer Cooperative Service	2.5
Statistical Reporting Service	34.0
Economic Management Support Center[a]	
TOTAL	68.4

[a] Not surveyed.

ECONOMIC RESEARCH SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	22,112				22,112			4,592	4,592	26,704
1976	24,676				24,676			5,894	5,894	30,570
1977	24,931				24,931			6,994	6,994	31,925

The Economic Research Service (ERS) is the largest social research agency within USDA, and all of its research is social. The ERS dates back to 1922, when its predecessor, the Bureau of Agricultural Economics, was founded. The mission of ERS is to conduct economic research designed to provide information to public and private decision makers at all levels who are concerned with the allocation and uses of agricultural resources and rural life. It maintains close contact with USDA staff; approximately 40 percent of its research is conducted at the request of USDA officials.

Research

Most of the research activities are conducted in-house. A small amount of research (less than 10 percent) is done by contract, and ERS administers no research grants. Approximately one-fifth of its staff is located at land grant colleges and in other federal agencies, enabling them to work closely with state agriculture experiment stations and other federal agencies concerned with the problems of agriculture.

ERS research is grouped into two areas of study and performed by six divisions: (1) Food and Fiber Economics (the Divisions of National Economic Analysis, Commodity Economics, and Foreign Demand and Competition); and (2) Resource and Development Economics (the Divisions of Natural Resource Economics, Foreign Development, and Economic Development). The six divisions conduct research in nine program areas as follows (fiscal 1977 obligations are presented in parentheses).

1. FOOD AND FIBER ECONOMICS ($19.7 million)

Economic Research and Analysis of Farm Programs and Policies ($3.3 million) This program:

- analyzes the impacts of proposed government programs and policies on agricultural production, prices, and incomes;
- analyzes the income of farmers and changes in the capital and wealth structure of the farm sector; and
- makes historical analyses of changes in American farming.

Economic Research and Analysis of Farm Structure and Resource Use and Productivity ($2.5 million) This program:

- identifies the current and future economic market structure of the U.S. agriculture industry;
- studies and identifies the supply requirements necessary to meet current and future food and fiber needs;
- estimates and analyzes the production of major crops and livestock in terms of the resources used and efficiency of that use; and
- estimates the average farm costs entailed in the production of major crop and livestock products.

Supply, Demand, and Price Analysis—Forecasts and Projections ($4.6 million) This program:

- appraises current farm market conditions (supply, demand, and prices) and forecasts future conditions;
- identifies the impact that technological and economic change may have on supply and demand;
- estimates the supply and demand relationship for farm commodities; and
- projects the nature of U.S. agriculture in the future, under alternative assumptions concerning major economic, social, and technological factors.

Economic Research and Analysis of Market Structure and Performance ($5.7 million) This program:

- identifies changes in the structure and performance of market subsectors and the causes and impacts of those changes on farmers, consumers, and the national economy;
- estimates and analyzes the ranges of prices that occur in the food and fiber sector;
- analyzes and evaluates the impact of public transportation policies on U.S. agriculture; and
- identifies the U.S. consumer market for agriculture commodities and then assists producers and distributors in developing those markets to their fullest potential.

Economic Research and Analysis of Agriculture Trade and Policies ($3.6 million) This program:

- estimates and forecasts (by country and commodity) U.S. and world agriculture trade, prices, and financial and monetary conditions;
- makes long-term projections for the supply and demand for agricultural products by world, regions, and countries;
- obtains information and analyzes weather–crop production relationships in foreign countries;
- assesses the feasibility of establishing or expanding specific foreign markets; and
- identifies the factors affecting the demand for U.S. agriculture products.

2. RESOURCE AND DEVELOPMENT ECONOMICS ($12.7 million)

Social and Economic Research and Analysis to Assist in the Planning and Development of Rural Areas ($2.9 million) This program:

- identifies, evaluates, and makes projections of demographic characteristics and trends;
- studies and identifies the characteristics of rural labor forces;
- studies the economic and social characteristics of manpower programs;
- measures the socioeconomic characteristics of rural people and communities;
- analyzes the adequacy of governmental and nongovernmental facilities and services in rural areas (water, sewage, medical care, education, housing, energy, and transportation);
- develops economic profiles and assesses prospects for economic growth in rural areas; and
- determines the effects of alternative public policies and programs on regional income, growth, and development.

Economic Research and Analysis of the Use and Development of Natural Resources ($1.3 million) This program:

- estimates the impacts of natural resource policies and programs on community income, growth, development, and resource ownership;
- establishes level of resources needed to meet demands for agricultural production, urban expansion, and other land uses;

- conducts economic inventories of the nation's land and water resources and identifies changes in ownership and land use over time and between geographic areas; and
- improves methods for planning natural resources and evaluating alternative means for conserving and developing land and water.

Economic Research and Analysis of Consumer Issues ($0.3 million) This program obtains information to aid the consumer in the purchase of agricultural products; and identifies the needs and preferences of institutional buyers and individual homemakers and assesses the performance of the food and fiber sector in meeting them.

Economic Analysis and Research to Improve Human Nutrition ($0.1 million) Financed in large part by the Food and Nutrition Service, this program evaluates USDA programs aimed at alleviating nutritional deficiencies of the poor, i.e., the School Lunch, Food Stamp, and Food and Nutrition Education Programs.

Dissemination

ERS obligated nearly $6.9 million for dissemination activities in fiscal 1977. Nearly $6 million of this total was spent by the Foreign Development Division (under Resource and Development Economics) for technical assistance and analysis to aid foreign development. The Foreign Development Division selects USDA experts to aid developing countries in increasing farm output, improving food distribution and quality of diets, and improving the use or protection of land and water resources with the latest research findings. This program can be viewed as a "foreign" extension service.

The remainder of ERS funds for dissemination is spent on the publication and distribution of their research studies. Over 100 separate research studies and nearly 30 periodicals are published annually. Dissemination funds are also spent on exhibits, demonstrations, brochures, fact sheets, and articles written especially for the farm press.

For Further Information

[1] See *Research Results for FY 1976 and Plans for FY 1977 and FY 1978* (December 1976), a publication of ERS.

To obtain this document or additional information on the activities of ERS, write Economic Research Service, Department of Agriculture, Washington, D.C. 20250.

FARMER COOPERATIVE SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,156			167	1,323		268	837	1,105	2,428
1976	1,254			167	1,421		268	793	1,061	2,482
1977	1,272			207	1,479		156	913	1,069	2,548

The mission of the Farmer Cooperative Service (FCS) is to conduct research and provide technical assistance to aid farmers in increasing the efficiency and competitiveness of agricultural cooperatives. Agricultural cooperatives, long used by family farmers to increase their incomes, engage in marketing farm products, purchasing production supplies, and performing related business services.

FCS is a highly specialized R&D agency that conducts research and disseminates information to a specific audience in one sector of the agricultural community. It supports a variety of activities that either produce or apply knowledge aimed at assisting farmers engaged in cooperative ventures.

Research

The agency's research, most of it conducted in-house, examines the financial, organizational, legal, social, and economic aspects of cooperative agricultural ventures; an example of such research might be a market efficiency study. Research conducted by FCS enables USDA to obtain a solid base of information to provide farmers with relevant, expert assistance pertaining to their cooperatives. A concerted effort is made to ensure that the agency's research has direct application to current and future cooperative needs.

General Purpose Statistics

Statistics are collected by FCS to detect changes in the structure, operation, and growth trends of cooperatives. The data help to identify and support future research and technical assistance activities and are used by legislative and executive decision makers in formulating agriculture policy.

Development of Materials

FCS publishes and distributes materials about agricultural cooperatives and maintains a central storehouse of information about farmer cooperatives. A monthly magazine on cooperatives is published by the agency.

Dissemination

FCS provides research-based technical assistance to cooperatives on a full range of organizational and management problems confronting cooperatives. Technical assistance is provided on such topics as the feasibility of forming a new cooperative, the merits of merging existing cooperatives, and the development of more viable relationships between cooperatives and other business institutions. Requests for technical assistance can come from a few farmers directly or through the management or board of directors of cooperative federations.

For Further Information

Write Farmer Cooperative Service, Department of Agriculture, Washington, D.C. 20250.

STATISTICAL REPORTING SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	838			26.468	27,306					27,306
1976	1,972			29,233	31,205					31,205
1977	2,007			32,031	34,038					34,038

The Statistical Reporting Service (SRS) administers the USDA's programs of collecting and publishing national and state agricultural statistics. The data collected by SRS are essential to farmers, processors, and handlers in making production and marketing decisions and to legislators and federal officials in developing and administering agricultural programs.

In addition to its primary responsibility of collecting agricultural statistics, SRS has several other important functions. It is responsible for the review, coordination, and monitoring of all data-gathering surveys conducted by other USDA agencies. This function involves the review of all proposed statistical forms and surveys requiring clearance by the Office of Management and Budget and the coordination of all interdepartmental and intradepartmental programs for the improvement of agricultural statistics and related data. SRS performs technical assignments for other federal and state agencies.

Research

SRS has an in-house research capability aimed at improving the statistical methods and techniques used in obtaining agricultural data. Research is conducted to develop better sampling procedures, yield forecasting and survey techniques for the agency. Current research activities include: developing new sampling techniques that combine lists of farms and aerial photographs with area sampling frames; constructing mathematical models for forecasting crop yields from objective counts and measuring plant characteristics; and reducing reporting and other nonsampling errors by improving questionnaire design and devising better field, editing, and processing procedures. The research projects are tested by pilot surveys under actual operating conditions and then, if proven effective, placed into operation.

General Purpose Statistics

SRS collects the official national estimates on agricultural production and other farm-related activities. Agricultural production statistics primarily center around estimates of approximately 150 crop and livestock products. Most estimates of major crop acreages and livestock inventories are based on a complex system of enumerative probability sample surveys of producers, processors, buyers, and others associated with agriculture. Indicators of these estimates are obtained by mail, telephone, personal interview, and field visits. SRS makes forecasts of crop yields per acre and production of major crops based on measurement and observations in a probability sample of field plots. It also collects data on farm employment, farm wage rates, stocks and values of farm commodities, indexes of prices paid and received by farmers, and parity prices.

For Further Information

Write Statistical Reporting Service, Department of Agriculture, Washington, D.C. 20250.

FARM AND RURAL DEVELOPMENT ADMINISTRATION

The 1977 reorganization of the Department of Agriculture created the new Farm and Rural Development Administration (FRDA), which combines the functions of the Farmers Home Administration and the Rural Development Administration. The functions of the Rural Development Administration have been combined with certain activities of the Farmers Home Administration to become the program, policy analysis, and evaluation staff reporting directly to the administrator of FRDA. The change of the Rural Development Service into a high-level policy planning unit within FRDA will assist in the administration of the broad range of rural and farm programs conducted by FRDA. Table 4-5 presents the agencies consolidated to form the new FRDA.

TABLE 4-5 Farm and Rural Development Administration (fiscal 1977, $millions)

Agencies Prior to Consolidation	Social Knowledge Production and Application Obligations
Farmers Home Administration	0.1
Rural Development Service	0.1
TOTAL	0.2

FARMERS HOME ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			10	50	60					60
1976	35		16	50	101					101
1977	35		14	50	99					99

The Farmers Home Administration provides financial credit to rural citizens who are unable to get credit from other sources at reasonable rates and terms. In fiscal 1976 and 1977, the agency contracted with the Economic Research Service to study the availability of essential community facilities, such as water and waste disposal systems, in rural areas. The agency conducts a small number of in-house evaluations on the effectiveness of their various programs. The agency collects general purpose statistics dealing with rural economics.

For Further Information

Write Farm and Rural Development Administration, Department of Agriculture, Washington, D.C. 20250.

RURAL DEVELOPMENT SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	95				95			55	55	150
1976								60	60	60
1977								75	75	75

The Rural Development Service is responsible for coordinating a nationwide rural development program. It seeks to work out arrangements and procedures that will result in the better delivery of federal program resources to rural communities and areas. In fiscal 1975, the Rural Development Service, in conjunction with the Farmers Home Administration, supported a major study of the rural health care delivery system. The agency also conducts an active dissemination program of supplying publications, computer retrieval services, and technical assistance to rural communities.

For Further Information

Write Farm and Rural Development Administration, Department of Agriculture, Washington, D.C. 20250.

FOOD AND AGRICULTURE SCIENCE AND EDUCATION ADMINISTRATION

The October 1977 reorganization of the Department of Agriculture created the Food and Agriculture Science and Education Administration (FASEA). The new administration was created to increase cooperation and coordination in the performance of agricultural research by federal departments and agencies, states, state agricultural experiment stations, colleges and universities, and user groups. The assistant secretary for conservation, research, and education will continue to oversee all research and extension activities brought under FASEA. Table 4-6 presents the agencies that were consolidated into FASEA.

TABLE 4-6 Food and Agricultural Science and Education Administration (fiscal 1977, $millions)

Agencies Prior to Consolidation	Social Knowledge Production and Application Obligations
Agricultural Research Service	1.6
Cooperative State Research Service	27.2
Extension Service	161.0
National Agricultural Library[a]	
TOTAL	189.8

[a] Not surveyed.

AGRICULTURAL RESEARCH SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,332				1,332					1,332
1976	1,563				1,563					1,563
1977	1,635				1,635					1,635

The Agricultural Research Service (ARS) is the largest research and development agency within USDA and one that has no operating programs. Of its total R&D budget for fiscal 1977 of $266.7 million, $1.6 million (0.5 percent) was devoted to social research. ARS is a subunit of the new FASEA.

ARS's basic mission is to provide scientific knowledge and technology to enable farmers to produce efficiently, conserve the environment, and meet the food and fiber needs of the American people. To carry out that mission, the agency conducts research and development on animal production, plant production, the use and improvement of soil, air, and water, and the marketing, use, and effects of agricultural products.

Nearly 95 percent of the agency's R&D is conducted intramurally—ARS has the second-largest civilian intramural R&D capacity in the federal government. With the exception of contract survey work, all of the agency's social research is conducted in-house.

Research

ARS's social research activities are conducted in two programs.

THE ECONOMICS OF FAMILY RESOURCES This program provides information aimed at improving family uses of resources and establishing safe and economic procedures for food management and preparation. In addition to short-term research, the program conducts continuing research on: income expenditures for rural families and changes in family assets and liabilities; identification of factors relevant to family financial decision making, including the use of medical care services; and the current costs of raising children in urban and rural environments.

THE ECONOMICS OF AGRICULTURAL TECHNOLOGIES This program examines the economic feasibility of new practices in crop and livestock production and new technologies for storage transportation and the marketing of agricultural commodities. Continuing lines of inquiry for this program include the study of reducing costs in distribution and marketing systems and the development of methods to increase the efficiency of consumer marketing.

For Further Information

Write Agricultural Research Service, Department of Agriculture, Washington, D.C. 20250.

COOPERATIVE STATE RESEARCH SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	22,487				22,487					22,487
1976	25,400				25,400					25,400
1977	27,189				27,189					27,189

The Cooperative State Research Service (CSRS) is the agency that administers research grants for USDA. Its budget of $123 million—of which nearly 25 percent was for social research activities—is the second-largest R&D budget in the department. Unlike other USDA agencies, CSRS conducts a very small amount of intramural research. The agency will be combined with the Extension Service to form a new subunit, the Cooperative Science and Education Service.

The largest portion of CSRS grants (over 75 percent) supports state agricultural experiment stations (SAES). The Hatch Act of 1887 (not to be confused with the Hatch Political Activity Act of 1939) authorized each state to set up an agricultural experiment station at a land grant institution. These stations were given the responsibility to conduct research, investigations, and experiments to develop and improve rural life and obtain maximum performance from the agricultural sector. There are currently 55 SAESs in the United States. CSRS funds for the experiment stations are apportioned by Congress for distribution to the states by a statutory formula. In addition to the funds received from the CSRS, the SAESs receive funds from other federal agencies, state legislatures, local sources, and industry. The largest source of financial support for each state agricultural experiment station comes from state appropriations. In this survey, however, only the social research activities supported by federal funds are included.

The decentralized research system supported by the CSRS makes it unique among federal R&D agencies. The theory behind a decentralized R&D system is that local R&D units understand the problems of a local area better—especially in the case of agriculture—because each state differs in climate, soil, market outlets, and other local conditions. Local R&D units are also considered to be better able to improve the economic and social welfare of rural families.

Research conducted by the SAESs is supervised broadly by the Department of Agriculture through the CSRS, which periodically reviews

SAES programs and projects. Projects initiated in SAESs take into account broad guidelines developed by CSRS. Theoretically, all projects are subject to CSRS approval, but only 5 percent has ever been turned down by the CSRS staff. For the most part, each SAES develops its own program of activities to meet the agriculture needs of its state, relying almost entirely on its research staff to generate program and project ideas.

Research

CSRS administers three grant programs, all of which include social research activities. Of the three programs, the first is the largest funder of social research.

GRANTS TO SAES UNDER AUTHORITY OF THE HATCH ACT OF 1887 The SAESs receive funds for work on six topics: (1) natural resources; (2) forest resources; (3) crop resources; (4) animal resources; (5) people, communities, and institutions; and (6) competition, trade adjustments, and income policy. The bulk of the program's social research activity is concentrated on the fifth and sixth topics. A limited amount of social research is conducted on natural resources, primarily on outdoor recreation and environmental quality.

Social research on "people, communities, and institutions" covers a wide range of topics such as food and nutrition, food safety, rural development, and early childhood. Research on food and nutrition is aimed at developing information needed to establish nutrient requirements for specific age-groups. Research is conducted on ways to improve the quality of life in rural America.

Social research on "competition, trade adjustments, and income policy" includes work on farm adjustments, prices and incomes, and the economic aspects of marketing and competition and on developing and evaluating alternative policies and programs for enhancing agriculture marketing practices.

GRANTS AND CONTRACTS FOR SCIENTIFIC RESEARCH UNDER PL 89-106 This program, which has two components, was developed as a supplement to the Hatch Act of 1887 to enable USDA to provide resources for specific problems of national interest in addition to the normal emphasis of the act.

The first component consists of grants made to SAESs, colleges and universities, and other research organizations. An annual program solicitation memo is sent to all potential applicants stating the priority research topics for a given year. In fiscal 1976, the priority topics were: environmental quality; food and nutrition; beef and pork production; soybeans; pest management; transportation; marketing and storage; forage, pasture, and range; genetic vulnerability; and pesticide clearance and safe use. Social research is conducted on environmental quality, food and nutrition, and transportation.

The second component supports research, much of it social, in land grant colleges and the Tuskegee Institute. It focuses on the development of human resource potential, particularly on the family and family life: family nutritional status; childhood education; cognitive and physical development; and the effects of family, society, and the physical environment on child development. This program also supports research on the improvement of economic opportunities for rural populations.

GRANTS FOR COOPERATIVE FOREST RESEARCH UNDER THE MCINTIRE STENNIS ACT This is a formula grant program for land grant colleges, SAESS, and other state-supported colleges and universities offering graduate training in forestry. The funds are used to encourage states to carry out a program of forest research. Social research in this program includes: management and protection of forest lands for outdoor recreation; and development of policies for the management of forest lands for harvesting and marketing of forest products.

For Further Information

Write Cooperative State Research Service, Department of Agriculture, Washington, D.C. 20250.

EXTENSION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			2,268		2,268			157,531	157,531	159,799
1976			1,867		1,867			165,984	165,984	167,851
1977			1,867		1,867			159,138	159,138	161,005

The Extension Service is the application arm of the Department of Agriculture. Its mission is to take the results of research produced by federal and state agricultural research units and interpret them, disseminate them, and encourage their use. Under the 1977 reorganization, the Extension Service was combined with the Cooperative State Research Service to form a new subunit, the Cooperative Science and Education Service. In 1914, the Extension Service was given a mandate to "aid in diffusing among the people of the United States useful and practical information on subjects relating to agricultural home economics and to encourage the application of the same."

The Extension Service reflects a national agricultural policy to build an efficient decentralized system composed of private farmers and businesses. To carry out that policy, USDA felt it essential to make research results available to farmers, ranchers, those in industry, and others through an effective, publicly supported delivery system. The objective was to ensure that research results and scientific know-how would be used by farmers and rural Americans to increase both food production and their own well-being.

The Extension Service is one of three partners in the Cooperative Extension Service; the others are state and county governments. All three share in financing, planning, and conducting the education programs of the service. (This survey reports only the federal contribution to the Cooperative Extension Service.) The service has headquarters in each of the land grant universities and field stations in nearly every county in the United States. The key workers in this system are the state extension specialists, whose job is to assemble and interpret research findings, develop teaching materials, and provide technical assistance to the county extension agent, who then works directly with individuals in solving their problems and providing them with new information.

The issue of whether the activities of the Extension Service should be included in this survey of social knowledge production and application activities involves two key questions: (1) Are the activities of the service social in nature? (2) Is the information disseminated by its staff based on research? This issue was the subject of debate among members of the Study Project, who decided that if an activity is based on research, it then meets their definition of dissemination.

A close examination of the Extension Service programs showed that approximately 70 percent of the activities could clearly be called social. The activities fall into four program areas: agricultural and natural resources; family development and home economics; youth development; and community resource development. The last three categories are totally social and account for 60 percent of the budget. Of the remaining 40 percent spent on agricultural and natural resources, approximately one-fourth of the activities in the agricultural and natural resources area were social. Dissemination of agricultural research was excluded.

It can be argued that in practice the activities of the Extension Service at the local level are not research-based and would be more appropriately categorized as a programmatic activity rather than as a knowledge production and application activity; inclusion of the Extension Service would greatly inflate the survey's total for dissemination and application activities. The counter argument is that the Extension Service, long held as a prime example of an R&D dissemination network, has been cited as a model for proposed dissemination networks in other social problem areas, such as education.

In the preparation of this survey, the Study Project on Social Research and Development did not have the resources to study the activities of the Extension Service firsthand. Similar issues were faced several times by the Study Project when considering research activities for inclusion in the survey—should agency policy be accepted as fact or should it be disregarded when conflicting information is provided? Members of the Extension Service staff stated that their dissemination activities are, in fact, research-based and stem from research findings by federal and state research units. Examination of agency documentation lent support to this position. When both sides of the issue were presented to the members of the Study Project, they decided that the activities of the Extension Service clearly fit their definition of dissemination and application and should be included in the survey. It should be emphasized that these activities were categorized as dissemination—not research. The activities of the service fall clearly outside the definition of research or development.

Program Evaluation

In recent years, the Extension Service has emphasized program evaluations at both the state and national level. These evaluations attempt to determine the impact of extension programs on the clientele groups for which the programs have been designed.

Dissemination

As noted earlier, the activities of the Extension Service fall into four program areas. (Obligations for fiscal 1977 are presented in parentheses.)

AGRICULTURAL AND NATURAL RESOURCES ($18.0 million) The social aspects of this program area—one fourth of the total—deal with improving the income of farmers by increasing their economic understanding of the agricultural production and marketing system. The program also attempts to provide new tools to farmers to improve their decision making.

FAMILY LIVING AND HOME ECONOMICS ($72.2 million) This program area, the largest of the Extension Service, provides families with educational programs and information on nutrition, health, housing, home management, child development, and consumer information. Special programs have been introduced to give expanded nutrition assistance and family education to low-income families. Extension Service activities in this program area often center around disseminating innovative methods and materials concerning consumer resource management.

YOUTH DEVELOPMENT ($52.3 million) These programs attempt to help youths in developing employable skills and exploring career alternatives and to develop family living skills. Greater emphasis is now placed on disseminating information concerning science education, human nutrition, environmental education, drug abuse, and consumer education.

COMMUNITY RESOURCE DEVELOPMENT ($16.5 million) This program aims to help entire communities with their problems by disseminating information to local officials and groups. Emphasis has been placed in recent years on rural development. Information on community planning and development is disseminated on housing problems, environmental improvements, health facilities, and economic development.

For Further Information

Write Extension Service, Department of Agriculture, Washington, D.C. 20250.

FOOD AND NUTRITION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	940	50	2,200	205	3,395		250	397	647	4,042
1976	1,110	200	550	225	2,085		260	483	743	2,828
1977	1,070	400	3,650	255	5,375		320	512	832	6,207

The Food and Nutrition Service administers USDA's food assistance programs, which are aimed at improving the dietary adequacy of the U.S. population, especially people with low incomes. The agency administers four programs: the Food Stamp Program, Child and Nutrition Programs (school lunch program, school breakfast program, etc.), the Food Distribution Program, and the Supplemental Food Program. As a result, the dominant activity of the agency is the evaluation of its own programs rather than the support of research for the use of others.

Program Evaluation

Obligations for program evaluations within the agency tend to fluctuate greatly from year to year, because the decision to evaluate programs is often influenced by external as well as internal factors. Program evaluations are conducted both by contract and by in-house staff. The large increase in fiscal 1977 funds for program evaluations reflects the agency's decision to launch three major evaluations of the controversial food stamp program. An earlier extensive evaluation examined the school breakfast and lunch programs.

Other Knowledge Production and Application Activities

A small amount of research is supported by the agency and conducted by agreement with the Economic Research Service and the Agricultural Research Service. Statistics for the agency are collected by the Statistical Reporting Service. The agency contracts with state governments to conduct small-scale demonstrations to test improved delivery procedures. The agency supports the development of educational materials on nutrition. Finally, the Food and Nutrition Service funds an education and dissemination center on nutrition, which is administered by the National Agricultural Library.

For Further Information

Write Food and Nutrition Service, Department of Agriculture, Washington, D.C. 20250.

FOREST SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5,607			300	5,907		8	1,500	1,508	7,415
1976	5,808			300	6,108		35	1,685	1,720	7,828
1977	6,116			300	6,416		45	1,678	1,723	8,139

The Forest Service is responsible for managing and protecting federal forest lands, conducting forest research, and working with state and private agencies to protect nonfederal forests. While the management of federal forest lands consumes over three-fourths of the agency's budget, the Forest Service does have a major program of research a development concerning forestry.

Forestry research is conducted on: forest and range management, forest protection, forest products and engineering, forest resource economics, and forest research construction. As in the rest of the department, most of the Forest Service's research is conducted in-house.

Research

The agency's social research is conducted within three major programs. (The obligations for fiscal 1977 are in parentheses.)

ECONOMICS AND MARKETING RESEARCH ($3.9 million) This program seeks to increase the efficiency of public and private investments in forest management programs and facilitate the optimum development of the multiple uses of forest and related lands consistent with environmental quality. Research is conducted on:

- ○ the economic efficiency of alternative ways of harvesting, processing, distributing, and using forest products;
- ○ assessing the impacts of alternative forest land management programs on the economy and the environment;

○ economic aspects of forest crop production, resource productivity, and marketing potential of forest products; and

○ developing criteria for the efficient allocation of the $1 billion now spent annually on the protection, development, and management of the nation's forest lands and related resources.

FOREST RECREATION RESEARCH ($1.5 million) This program seeks to determine the recreational requirements of the forest-using public and ways in which that demand can best be met. The goal of the program is to increase the attractiveness and social value of forests for people by developing knowledge and management systems that will guide and enhance the use of forest environment for outdoor recreation and coordinate the management of outdoor recreation with other forest practices. Research is conducted on: determining the economic impacts of forest recreation use and development on employment and income in rural America and developing systems for estimating visitor requirements, reducing costs of providing for visitor health and safety, and lessening damages of resources from recreation use.

URBAN FORESTRY RESEARCH ($0.7 million) This program is aimed at providing information to metropolitan decision makers concerning the maintenance of a proper balance between urban population and the surrounding environment. An example of research on this topic is studies to determine and evaluate the potential and latent demand of urban residents for outdoor recreation.

For Further Information

Write Forest Service, Department of Agriculture, Washington, D.C. 20250.

DEPARTMENT OF AGRICULTURE: OTHER AGENCIES

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			48	209	257					257
1976			64	162	226					226
1977			7	162	169					169

This agency administers USDA's land use and commodity programs, which are aimed at voluntary production adjustments, resource protection, and price stabilization. The agency collects economic statistics on a variety of commodities and conducts in-house program evaluations.

For Further Information

Write Agricultural Stabilization and Conservation Service, Department of Agriculture, Washington, D.C. 20250.

RURAL ELECTRIFICATION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975				44	44					44
1976				46	46					46
1977				48	48					48

This agency finances electric and telephone facilities in rural areas to ensure that these services are available to rural Americans. The agency's statistical activities consist of publishing an annual report that presents financial and statistical information on the operation of electric and telephone facilities in rural areas.

For Further Information

Write Rural Electrification Service, Department of Agriculture, Washington, D.C. 20250.

SOIL CONSERVATION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	300		57		357					357
1976	331		33		364					364
1977	331		33		364					364

This agency has the responsibility for developing and carrying out a national soil and water conservation program in cooperation with landowners, developers, community planning agencies, regional resource groups, and other agencies of government. The agency's social research activities are conducted primarily in connection with river basin surveys. These surveys examine the agriculture and related economics of river basins and analyze land and water use in relation to the total economy of the basin. Interregional economic analyses are conducted in connection with the river basin surveys. The agency conducts, largely in-house, evaluations to determine the impact of their programs. An evaluation recently studied the impact of water supply forecasting on agricultural incomes in 11 western states.

For Further Information

Write Soil Conservation Service, Department of Agriculture, Washington, D.C. 20250.

5 Department of Commerce

The U.S. Department of Commerce is the third-largest cabinet-level funder of social knowledge production and application in the federal government. Historically, the dominant activity of the department has been general purpose statistics; since its creation in 1902, the Bureau of the Census has been the leading statistical agency in the federal government. Initially collected as a service to the business community, economic statistics now have a much wider audience.

While nearly 70 percent of the agency's total social knowledge production and application obligations is for general purpose statistics, the department has expanded its research activities during the last 10 years. The Public Works and Economic Development Act of 1965 created the Economic Development Administration and charged it with undertaking research on the causes of unemployment, underemployment, etc. Four years later, the Office of Minority Business Enterprise was created and was also charged with conducting research. In 1970, the Office of Telecommunications was established; in 1972, the Domestic and International Business Administration was created with enlarged research responsibilities; in 1973, the Experimental Technology Incentives Program was created within the National Bureau of Standards; in 1974, the National Fire Prevention and Control Administration was created by Congress. These new organizations and new responsibilities pushed the department into new areas of social activities. By 1977, the Department of Commerce no longer funded only "statistics" but a diverse set of social knowledge production and application activities—although some were funded on a very small scale.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 5-1 presents the distribution of the department's social knowledge production and application activities. After general purpose statistics, which account for nearly 70 percent of the total knowledge production and application obligations, the second-largest activity of the department is research. In fiscal 1977, Commerce spent over $24 million on research and ranked seventh in the federal government in social research obligations. The Economic Development Administration is the largest research funder in the department.

TABLE 5-1 Department of Commerce Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	19.3	22.3	24.2
	(20.6)[a]	(19.6)	(18.7)
Policy formulation demonstrations	2.5	4.2	3.1
	(2.7)	(3.7)	(2.4)
Program evaluation	1.3	1.7	1.7
	(1.4)	(1.5)	(1.3)
General purpose statistics	63.8	77.4	90.2
	(68.4)	(67.9)	(69.6)
Total	86.8	105.5	119.2
	(93.0)	(92.7)	(92.0)
Knowledge application			
Policy implementation demonstrations	0.6	0.8	1.0
	(0.6)	(0.7)	(0.7)
Development of materials	0.1	0.1	0.1
	(0.1)	(0.1)	(0.1)
Dissemination	5.8	7.4	9.2
	(6.2)	(6.5)	(7.1)
Total	6.5	8.3	10.3
	(7.0)	(7.3)	(8.0)
TOTAL	93.4	113.9	129.6
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

ORGANIZATION OF THE DEPARTMENT

Figure 5-1 presents the organizational chart of the Department of Commerce. The two statistical agencies, the Bureau of Economic Analysis and the Bureau of the Census, both report to the department's chief economist. The National Bureau of Standards and the Office of Telecommunications report to the assistant secretary for science and technology. All other Commerce units are relatively independent.

Table 5-2 presents the Department of Commerce agencies that fund social knowledge production and application activities. The Bureau of the Census is the dominant social knowledge production and application agency in the department; it is over five times larger than the next-largest social knowledge production and application agency, the Economic Development Administration.

Two agencies, the Office of Minority Business Enterprise and the National Bureau of Standards (the Experimental Technology Incentive Program), have demonstrations as their predominant knowledge production and application activity. Both agencies also have a small research program in conjunction with their demonstration program. Their dominant activity, however, is demonstrations for policy formulation, which serve to test new programmatic ideas and assess their potential effect.

Table 5-2 demonstrates the third-party nature of the Department of Commerce's activities. While the business community has long been its primary audience, in recent years the department has aimed some of its programs at more specialized audiences: minority businessmen, economically distressed communities, and small businesses. The scientific community is a major audience for the activities of the National Oceanic and Atmospheric Administration and the Office of Telecommunications. While the Bureau of the Census and the Bureau of Economic Analysis generate statistics that are used by decision makers, only the research activities of the Domestic and International Business Administration are expressly developed for federal decision makers and the improvement of federal policy.

POLICY AREAS IN THE DEPARTMENT

Table 5-3 presents the agencies in which social knowledge production and application activities are funded by policy area. The policy area "Economic Growth and Productivity" dominates the department's activities, a fact that should not be surprising in light of the department's

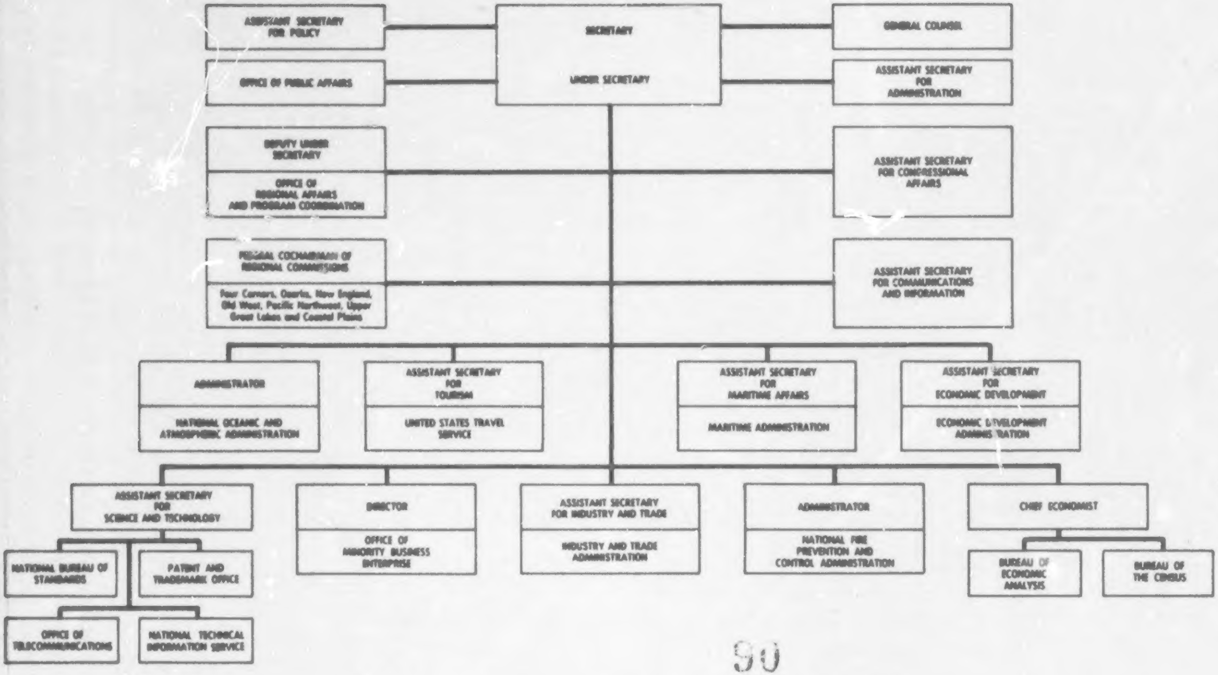

ASSISTANT SECRETARY FOR POLICY
SECRETARY
UNDER SECRETARY
GENERAL COUNSEL
OFFICE OF PUBLIC AFFAIRS
ASSISTANT SECRETARY FOR ADMINISTRATION
DEPUTY UNDER SECRETARY
OFFICE OF REGIONAL AFFAIRS AND PROGRAM COORDINATION
ASSISTANT SECRETARY FOR CONGRESSIONAL AFFAIRS
FEDERAL COCHAIRMAN OF REGIONAL COMMISSIONS
Four Corners, Ozarks, New England, Old West, Pacific Northwest, Upper Great Lakes and Coastal Plains
ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION
ADMINISTRATOR
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ASSISTANT SECRETARY FOR TOURISM
UNITED STATES TRAVEL SERVICE
ASSISTANT SECRETARY FOR MARITIME AFFAIRS
MARITIME ADMINISTRATION
ASSISTANT SECRETARY FOR ECONOMIC DEVELOPMENT
ECONOMIC DEVELOPMENT ADMINISTRATION
ASSISTANT SECRETARY FOR SCIENCE AND TECHNOLOGY
NATIONAL BUREAU OF STANDARDS
PATENT AND TRADEMARK OFFICE
OFFICE OF TELECOMMUNICATIONS
NATIONAL TECHNICAL INFORMATION SERVICE
DIRECTOR
OFFICE OF MINORITY BUSINESS ENTERPRISE
ASSISTANT SECRETARY FOR INDUSTRY AND TRADE
INDUSTRY AND TRADE ADMINISTRATION
ADMINISTRATOR
NATIONAL FIRE PREVENTION AND CONTROL ADMINISTRATION
CHIEF ECONOMIST
BUREAU OF ECONOMIC ANALYSIS
BUREAU OF THE CENSUS

FIGURE 5-1 Department of Commerce organizational chart.

TABLE 5-2 Department of Commerce Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Bureau of the Census	79.6	General purpose statistics	Statistical agency	Collection of statistics
Economic Development Administration	15.3	Research	Operating agency	Knowledge for third parties
Bureau of Economic Analysis	12.3	General purpose statistics	Statistical agency	Collection of statistics
Domestic and International Business Administration	7.4	General purpose statistics/ research	Operating agency	Improvement of federal policies
National Oceanic and Atmospheric Administration	6.1	Research	Operating agency	Knowledge for third parties
National Bureau of Standards	2.8	Demonstrations	R&D agency	Knowledge for third parties
Office of Minority Business Enterprise	1.9	Demonstrations	Operating agency	Knowledge for third parties
Office of Telecommunications	1.4	Dissemination	R&D agency	Knowledge for third parties
National Fire Prevention and Control Administration	1.2	Diversified activities	Operating agency	Knowledge for third parties
Maritime Administration	0.9	Research	Operating agency	Improvement of federal programs
U.S. Travel Service	0.8	Research	Operating agency	Improvement of federal programs
TOTAL	129.6			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

TABLE 5-3 Department of Commerce Agencies: Social Knowledge Production and Application Activities by Policy Areas (fiscal 1977, $millions)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
Bureau of the Census						79.6 (100.0)[a]					79.6 (100.0)					79.6 (100.0)
Bureau of Economic Analysis						12.3 (100.0)					12.3 (100.0)					12.3 (100.0)
Domestic and International Business Administration						7.4 (100.0)					7.4 (100.0)					7.4 (100.0)
Economic Development Administration						15.3 (100.0)					15.3 (100.0)					15.3 (100.0)

Maritime Administration				0.9 (100.0)		0.9 (100.0)				0.9 (100.0)
National Bureau of Standards				2.5 (90.9)		2.5 (90.9)		0.3 (9.1)	0.3 (9.1)	2.8 (100.0)
National Fire Prevention and Control Administration	0.9 (73.4)	0.3 (26.6)	1.2 (100.0)							1.2 (100.0)
National Oceanic and Atmospheric Administration							6.1 (100.0)		6.1 (100.0)	6.1 (100.0)
Office of Minority Business Enterprise				1.9 (100.0)		1.9 (100.0)				1.9 (100.0)
Office of Telecommunications					1.4 (100.0)	1.4 (100.0)				1.4 (100.0)
U.S. Travel Service				0.8 (100.0)		0.8 (100.0)				0.8 (100.0)
TOTAL	0.9 (0.7)	0.3 (0.3)	1.2 (0.9)	120.6 (93.1)	1.4 (1.0)	122.0 (94.1)	6.1 (4.7)	0.3 (0.2)	6.4 (4.9)	129.6 (100.0)

Numbers may not total due to rounding.

ªNumbers in parentheses are row percentages.

mission to "encourage, serve, and promote the Nation's economic and technological advancement." The second largest policy area is "Natural Resources," which includes the activities of the National Oceanic and Atmospheric Administration.

NATIONAL TECHNICAL INFORMATION SERVICE

The National Technical Information Service (NTIS) collects, promotes, and sells technological, scientific, economic, business, and engineering information resulting from federal R&D activities. The goal of NTIS is to make the results of federal R&D more readily available to industry, business, government, and the general public.

Dollar totals for the dissemination activities of NTIS have not been included in this survey. NTIS programs are largely funded (92 percent) from the sale of products and services to its customers. The social portion of NTIS's small direct appropriation could not be ascertained.

For Further Information

Write National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Va. 22161.

BUREAU OF THE CENSUS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	659			52,988	53,647			957	957	54,604
1976	763			64,682	65,445			1,047	1,047	66,492
1977	872			76,899	77,771			1,824	1,824	79,595

The Bureau of the Census is the largest general purpose statistical agency in the federal government. The bureau has three major activities:

○ The conduct of all the censuses authorized by law. Two censuses (population and housing) are conducted every 10 years. Eight censuses (agriculture, state and local governments, manufacturers, mineral industries, commercial fisheries, businesses, construction industry, and transportation) are conducted at various 5-year intervals.

○ The conduct of current surveys, which provide information on many of the census subjects at weekly, monthly, quarterly, and other intervals.

○ The compilation of current United States foreign trade statistics, including imports, exports, and shipping data.

The statistics produced by the Census Bureau on the changing structure and characteristics of the nation's economy and population are used by a variety of audiences—federal, state, and local decision makers, private businesses, the academic community, labor organizations, other organizations, and the general public. The data are used for making projections on many topics—population growth and dispersion, public education, highways, etc.—as well as for such things as apportioning state legislatures and determining congressional districts.

As an extension of its primary mission, the Bureau of the Census collects data for other federal agencies and provides them with technical advice. Federal agencies transfer over $60 million annually to the Census Bureau for the collection of statistics, consultation on sample design, data processing, and consultation. The dollar totals reported above include only the bureau's direct appropriation from Congress; agency transfers are reported as obligations for the agency transferring the funds.

Research

The Census Bureau conducts a small in-house research program, the goal of which is to increase the accuracy and timeliness of the agency's statistical information. Research topics include: sampling theory and survey design; measurement and control of response or measurement errors; editing of statistical data; quality control procedures; and systems analysis, operations research and time series analyses.

General Purpose Statistics

The Census Bureau's programs for general purpose statistics are divided into two collections: current statistical collections and periodic census collections (see Tables 5-4 and 5-5).

The Census Bureau has received substantial increases in funds for general purpose statistics during the past three fiscal years. The large

TABLE 5-4 Statistical Collection Programs of the Bureau of the Census (fiscal 1977 obligations in parentheses)[a]

I. CURRENT STATISTICAL COLLECTIONS ($39.4 million)

Current Economic Statistics ($33.7 million)

Business Economic Statistics ($7.6 million) collects data on current retail sales; current wholesale trade activity; trade activity of six major service groups.

Construction Statistics ($4.5 million) collects data on construction permits; construction starts; values of new construction; estimates of construction alterations and repairs; construction prices.

Manufacturing Statistics ($6.0 million) collects data on current commodity reports; manufacturer's shipments, inventories, and orders; survey of manufacturer's factory operations (employment, investments, etc.); environmental pollution abatement expenditures.

General Economic Statistics ($3.8 million) prepares the Industrial Directory of all United States business firms and develops the uniform classification codes. The program also collects data on county business patterns; mergers, acquisitions, and disposals.

Foreign Trade Statistics ($8.6 million) collects data on import and export statistics on all types of merchandise and commodities.

State and Local Government Statistics ($3.0 million) collects data on government finances and employment; state and local public construction; revenue sharing.

Agriculture Statistics ($0.2 million) collects data on cotton ginning and production.

Current Demographic Statistics ($5.7 million)

Population Statistics ($5.3 million) collects data on current population; population estimates and projections; social and economic characteristics of the population.

Housing Statistics ($0.4 million) collects data on inventory of housing; housing vacancies; and projections on future housing needs.

II. PERIODIC CENSUS COLLECTIONS ($36.9 million)

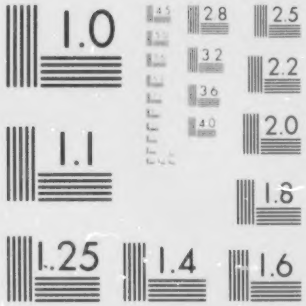
Economic Statistics ($14.8 million)

1977 Economic Censuses ($6.1 million): Census of business, manufacturers, mineral industries, and transportation will be conducted.

1977 Census of Governments ($3.4 million) will include data on government finance, public employment, and government organization.

1974 and 1978 Census of Agriculture ($5.3 million): 1974 census activities included the review, tabulation, and publication of state reports of census evaluation. 1978 census will include data on number of farms, characteristics of farms, and agricultural economic activity.

M.S.



1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5

MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1963-A

TABLE 5-4 (Continued)

Demographic Statistics ($22.1 million)

Intercensal Demographic Estimates ($1.9 million) develops and prepares updated population and per capita income estimates as required by the Department of Treasury.

1980 Decennial Census of Population ($17.5 million): During fiscal 1977, the Census Bureau will continue developing, planning, and testing the 1980 population census. Specifically, the Census Bureau will review the methods and procedures used during the 1970 census; initiate questionnaire design and determine the content of the 1980 census; and develop improved processing procedures and collection techniques.

Registration and Voting Survey ($2.7 million), required by the Voting Rights Act of 1965, is conducted in every state or political subdivision falling under the requirements of the act.

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*Total comes to $76.3 million. Another $0.5 million is spent in developmental activities, bringing the total of general purpose statistics to $76.9 million.

increase in fiscal 1977 funds (nearly $13 million over fiscal 1976) is for the preparation of the 1980 Censuses of Population and Housing.

Dissemination

In addition to the agency's principal periodic reports (Table 5-5), the bureau publishes a variety of guides, reference works, and explanatory material on the nature and use of its data. The bureau publishes a series of technical and working papers that have been prepared by the bureau's research division and an annotated reference catalog of both the bureau's work and other unpublished material. The bureau issues a number of statistical compendiums, the most well-known of which is the *Statistical Abstract*.

In addition to its published reports, the Census Bureau has extensive tabulations of data available for purchase on computer tape. The amount and detail of the data are generally greater on tape than in reports, and data for some small geographic areas are available only on tape. The Census Bureau will also perform special tabulations, on a fee basis, of computerized questionnaire responses.

For Further Information

Write Bureau of the Census, Department of Commerce, Washington, D.C. 20233.

TABLE 5-5 Principal Periodic Reports of the U.S. Bureau of the Census[a] (date of most recent edition is noted)

Statistical Abstract of the United States
County and City Data Book
Pocket Data Book, USA 1973
Historical Statistics of the United States, Colonial Times to 1970
Congressional District Data Book
U.S. Census of Population: 1970
U.S. Census of Housing: 1970
U.S. Censuses of Population and Housing: 1970
Current Population Reports
Current Housing Reports
U.S. Census of Agriculture: 1969
U.S. Census of Retail Trade: 1972
U.S. Census of Wholesale Trade: 1972
U.S. Census of Selected Service Industries: 1972
U.S. Census of Construction Industries: 1972
Construction Reports
U.S. Census of Manufactures: 1972
Annual Survey of Manufactures
Current Industrial Reports
U.S. Census of Mineral Industries: 1972
Enterprise Statistics: 1972
Highlights of U.S. Export and Import Trade
U.S. Commodity Exports and Imports as Related to Output
U.S. Census of Governments: 1972
County Business Patterns
Survey of Minority-Owned Business Enterprises: 1972
Mergers and Acquisitions
U.S. Census of Transportation: 1972
Bureau of the Census Catalog
Bureau of the Census Guide to Programs and Publications
Bureau of the Census Technical Papers
Bureau of the Census Working Papers

SOURCE: Executive Office of the President, Office of Management and Budget, *Statistical Services of the United States Government*, 1975 Edition.

[a] Publications available from the U.S. Government Printing Office, Washington, D.C.

BUREAU OF ECONOMIC ANALYSIS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,559			7,000	8,559			1,400	1,400	9,959
1976	1,959			8,200	10,159			1,600	1,600	11,759
1977	2,000			8,600	10,600			1,700	1,700	12,300

The function of the Bureau of Economic Analysis is to provide a clear picture of the United States economy through the preparation, development, and interpretation of the economic accounts (gross national product, etc.) of the United States. These economic accounts provide a realistic, quantitative view of the United States economic process in terms of the production, distribution, and use of the nation's output.

The economic accounts prepared by the bureau are used extensively by decision makers in the executive and legislative branches of government and by the Federal Reserve Board in the formulation and execution of fiscal, financial, and other economic policies concerned with the stability, growth, and distribution of national income. Economic accounts are also used by other groups: state and local governments, business and labor, universities and research organizations, and individuals.

Research

The bureau interprets economic developments in light of economic accounts and other pertinent information. The bureau makes monthly assessments of the national business situation and conducts continuing analyses of the factors underlying cyclical developments and long-range business trends. Other research activities include:

- ○ surveys of the investment outlays and programs of U.S. businesses;
- ○ use of short and medium econometric models to forecast economic activity within the framework of economic accounts;
- ○ estimates of capital expenditures and operating costs for pollution abatement; and
- ○ development of a system of leading, lagging, and coincident business cycle indicators.

General Purpose Statistics

Economic accounts have been categorized as general purpose statistics. The following economic accounts are prepared by the bureau:

- national income and product accounts, which are summarized by the gross national product (GNP);
- wealth accounts, which show business and other components of national wealth;
- interindustry accounts, which show the interrelationships among industrial markets;
- regional accounts, which provide detail on economic activity by state, metropolitan area, and county;
- balance of payment accounts, which give details on United States economic transactions with foreign countries; and
- international investments, which estimate United States direct investments abroad, foreign direct investment in the United States, income flows associated with these investments, and other economic transactions of multinational enterprises.

Dissemination

Dissemination activities include the distribution of several major publications by the bureau: *Survey of Current Business, Weekly Business Statistics, Business Conditions Digest, Defense Indicators,* and *Long Term Economic Growth.* The bureau publishes staff papers reporting bureau research that is more specialized than that appearing in *Survey of Current Business.*

For Further Information

See *The National Income and Products Accounts of the United States, 1929–74—Statistical Tables,* U.S. Government Printing Office, Washington, D.C., or write Information Services Division, Bureau of Economic Analysis, Department of Commerce, Washington, D.C. 20230.

DOMESTIC AND INTERNATIONAL BUSINESS ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,477			3,386	5,863					5,863
1976	2,843			4,096	6,939					6,939
1977	3,031			4,341	7,372					7,372

The Domestic and International Business Administration (DIBA) was created to bring together numerous programs of business assistance and trade development, both international and domestic, into a single operating agency. The aim of DIBA's programs is to promote the growth of American industry and commerce, stimulate the expansion of U.S. exports, and strengthen the international commercial position of the United States.

Research

DIBA assists the Department of Commerce in the research, analysis, and formulation of international economic policy. This assistance is provided in four programs of research.

INTERNATIONAL TRADE ANALYSIS DIBA provides economic analysis and assessment of statistical data concerning the foreign trade of the United States and other nations. This research includes analysis of current trends in U.S. foreign trade; forecasting of U.S. exports and imports, using overall and regional econometric models; and evaluations of shifts in the U.S. share of foreign markets.

ECONOMIC RESEARCH This program aims to provide government policy makers with sound economic research upon which to base policy decisions pertaining to international economic and commercial issues. The program is largely quantitative in its approach to policy issues, utilizing forecasting methodology. Research topics include: multilateral trade negotiations; development of policy-oriented economic models; issues related to energy and raw materials; the implication on the world economy of wealth transfer to the oil-producing countries; and the effects of inflating exchange rates and inflation in this country and abroad.

EAST-WEST TRADE ANALYSIS This program studies ways in which the department can develop, formulate, and improve policies and activities to expand commercial relationships between the United States and nations with centrally planned socialist economies (CPE). This program develops policy and legislative proposals to resolve problems inherent in trade between the United States and the CPE nations. Research topics include: analysis of data concerning trade between the CPE nations and the Western industrialized nations; analysis of five-year economic plans and growth analyses from previous years to estimate for each CPE nation its ability to absorb U.S. exports on a sector-by-sector and industry-by-industry basis.

POLLUTION ABATEMENT TRADE IMPACT This program provides Congress with an annual study assessing the economic impact of pollution control expenditures on international trade. The study includes determining the costs of pollution abatement and control programs on U.S. and foreign manufacturers and the resulting effects on international trade.

General Purpose Statistics

DIBA serves as a major source of industry and commodity data, which are then provided to the business community. An industry data base is maintained and used in analyzing and assessing trends in selected industrial sectors. Data are collected on 325 manufacturing industries and 222 wholesale and retail business and service trades.

For Further Information

Write Domestic and International Business Administration, Department of Commerce, Washington, D.C. 20230.

ECONOMIC DEVELOPMENT ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	6,118		1,000	200	7,318			1,020	1,020	8,338
1976	9,000		1,400	70	10,470			2,920	2,920	13,390
1977	10,000		1,400	20	11,420			3,920	3,920	15,340

The mission of the Economic Development Administration (EDA) is to reduce the incidence of substantial and persistent unemployment in economically distressed communities. The aim of EDA is the long-range economic development of communities with severe unemployment and low family income. The agency attempts to improve the ability of state and local officials to resolve problems of economic adjustment and development by assisting in planning, coordination, and implementation activities at all levels of government. The agency assists in economic development by making grants and loans to public and private enterprise to help create new permanent jobs.

Research

EDA's research is aimed at determining the causes of unemployment, underemployment, and chronic economic depression in various communities and regions of the nation. The Office of Research also assists the agency in the formulation and implementation of programs that attempt to alleviate the problem of adverse economic conditions. EDA's Office of Research concentrates on the following program areas.

REGIONAL ECONOMIC STRUCTURES AND RELATIONSHIPS This program area studies patterns of migration and differential impacts of urban and rural areas and continually evaluates attempts at regional development.

DATA DEVELOPMENT AND ANALYSIS This program area attempts to develop innovative measuring techniques and indices. More accurate measures are being developed on unemployment and underemployment, income distribution, state and local tax burdens, and the geographic distribution of federal programs and expenditures.

ECONOMIC DEVELOPMENT ACTIVITIES AND PROCESSES This program area studies institutional aspects of economic development to explore their interrelationships and to facilitate the development process.

SUBNATIONAL IMPACT OF CHANGING NATIONAL POLICIES AND PROGRAMS This program area studies the impact of governmental decisions on the national and subnational economy. The programs analyze (through a variety of tools such as models, specialized studies, impact analysis, and evaluative and analytical techniques) the interaction of the real and projected national policies on the economics of distressed communities.

An example of EDA research is the study, "A Myth in the Making: The Southern Economic Challenge and the North Economic Decline," which challenges the popular impression that the South has derived great economic benefit from favored treatment in government spending and a preferred status among businesses seeking new plant sites. The study discounts the impression that the South is significantly closing the gap between earnings there and in the North. The study found that the gap in earnings has closed somewhat but that the South is still riddled with poverty and other problems far greater than those facing the North.

This survey found that many technical assistance activities funded by EDA were better categorized as research than technical assistance. EDA provides "technical assistance" funds at the local level for research on local economic conditions. This research is designed to assist the local communities in identifying specific economic problems hindering their economic growth. Technical assistance projects support university research, which concentrates on issues of broad regional development, business expansion, business stabilization, and new venture development.

Dissemination

This activity includes technical assistance in which knowledge-based information is provided to states and local communities through consultants, etc. This type of technical assistance differs from that categorized as research. EDA funds many types of organizations to disperse information and assistance to economically distressed communities. The agency also supports research synthesis, another dissemination activity.

For Further Information

Write Office of Research, Economic Development Administration, Department of Commerce, Washington, D.C. 20230.

MARITIME ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	648				648					648
1976	894				894					894
1977	862				862					862

The Maritime Administration is responsible for aiding the development, promotion, and operation of the U.S. merchant marine industry. It administers subsidy programs, constructs or supervises the construction of merchant-type ships, and provides for the operation and training of the U.S. merchant marine. The Maritime Administration also conducts technological R&D activities aimed at improving the efficiency and economy of the merchant marine.

Research

In fiscal 1977, the agency's social research obligations totaled under $1 million. The agency's social research activities consist of market analysis and transportation studies. The agency's research studies analyze trade data to assess new markets and provide trade data to the ship operating industry for its use in evaluating current transportation markets.

For Further Information

Write Maritime Administration, Department of Commerce, Washington, D.C. 20230.

NATIONAL BUREAU OF STANDARDS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	344	1,486			1,930	100			100	2,030
1976	573	3,204	40		3,817	45			45	3,862
1977	375	2,125			2,500	250			250	2,750

The National Bureau of Standards is the second-largest research and development agency within the Department of Commerce. The bureau's overall goal is to strengthen and advance the nation's science and technology and facilitate their effective application for the public benefit. The bureau has five components:

1. The Institute of Basic Standards provides a complete and consistent system of physical measurement and coordinates that system with measurement systems of other countries.
2. The Institute for Materials Research conducts research to provide a better understanding of the basic properties of materials and to develop ways for putting materials to better use.
3. The Institute for Applied Technology conducts research and applies the technology it has developed to building, fire, and domestic standards, electronics, and consumer product performance and safety.
4. The Institute for Computer Science and Technology develops standards and provides scientific and technical guidance for the effective use of computer and automation technology in the federal government.
5. The Experimental Technology Incentives Program (ETIP) investigates ways in which the federal government can stimulate technological innovation in the private sector.

The ETIP program and two small programs within the Institute for Applied Technology were the only social knowledge production and application activities found in the National Bureau of Standards.

Research

In addition to funding policy formulation demonstrations, ETIP funds a limited amount of research on topics of interest to it. ETIP recently funded a study of the management of federal civilian R&D programs. This project is designed to describe and analyze the practices of the federal government in the planning, implementation, management, and evaluation of civilian R&D programs. Another ETIP research project analyzed, through a series of case studies, the impact of regulations on technological innovations.

While no dollar figures could be obtained, a small amount of social research is conducted by the Center for Consumer Product Technology within the Institute of Applied Technology. This program tries to improve understanding of the behavior, perceptions, and physical abilities of product users. Recent projects have:

- examined the physical and intellectual characteristics of the users in relation to the physical nature and design of the product;
- developed methods for measuring people's perception of the degree of risk associated with the use of consumer products;
- developed methods for assessing human reactions to safety-related changes made in consumer products; and
- completed a study of patterns of consumer use and abuse and identified product characteristics that influence consumer behavior and accidents.

Policy Formulation Demonstrations

The major activity of ETIP is to fund small-scale experiments—policy formulation demonstrations—to test hypotheses concerning policies that the federal government can use to stimulate technological innovations in the private sector. These experiments are real-world interventions made in an effort to find out what results will occur when a policy or practice is changed. The experiments are usually conducted in conjunction with another federal agency. Major topics of experiments are listed below.

PROCUREMENT Examines the hypothesis that several procurement tools can be used to reduce the risks of market entry for technologically improved products.

REGULATION Tests methods for improving the regulatory environment by removing unnecessary barriers to desirable technological change.

CIVILIAN RESEARCH AND DEVELOPMENT Tests procedures that are believed to contribute to more effective use of research and development funded by the federal government.

ECONOMIC ASSISTANCE Investigates whether economic assistance furnished by the government can be more effectively used to promote desirable technological change.

ETIP has worked with the General Services Administration and the Veterans Administration on procurement. Experiments were conducted on the use of performance specifications and value incentive clauses. Another focus of ETIP activities has been government regulatory policy; an experiment was conducted with the Nuclear Regulatory Commission to determine whether the time needed to devise standards could be shortened. With regard to small business assistance, ETIP helped establish a quasi-public corporation with the state of Connecticut that paid seed money to small firms for product innovation.

All experiments have an evaluation component that is included as part of the cost for the experiment.

Policy Implementation Demonstrations

The Institute of Applied Technology conducts evaluations of the socioeconomic effects of the MIUS (Modular Integrated Utility System) demonstrations, sponsored by the Department of Housing and Urban Development, to show that a total energy system (providing in a single package electricity, heating, air conditioning, and hot water) is possible in a residential/commercial complex. Since MIUS is a policy implementation demonstration, the cost for its evaluation has been presented in this category.

For Further Information

Write Office of Technical Publications, National Bureau of Standards, Department of Commerce, Washington, D.C. 20234.

NATIONAL FIRE PREVENTION AND CONTROL ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	100			254	354		120	211	331	685
1976	100			322	422	200	120	377	697	1,119
1977	103			333	436	200	126	463	789	1,225

The primary mission of the National Fire Prevention and Control Administration (NFPCA) is to reduce the loss of life and property through better fire prevention and control. The agency attempts to provide a coordinated program to support and reinforce the activities of state and local governments. Among the principal functions of the agency is the advancement of the professional development of fire service personnel.

Research

The administration conducts a small research program to establish, through research and testing, a public fire prevention education program. Studies have been conducted on alternative educational approaches to reach high-risk groups. Another study has examined the delivery system of fire prevention programs. A major study is being cosponsored with the Center for Fire Research at the National Bureau of Standards to determine why the United States leads the Western world in the number of fire deaths.

General Purpose Statistics

The agency assembles and analyzes statistical fire data, such as fire incidence and number of injuries incurred. The data are then used to identify causes of the most significant fire losses, establish priorities for R&D efforts, and measure the effects of new mandatory standards, test methods, and building codes in reducing fire losses.

Policy Implementation Demonstrations

To improve the fire service educational system, the agency administers grants to state and local training institutions for pilot projects to use new curriculum materials or innovative approaches in fire education and training programs.

Development of Materials

A major responsibility of the National Academy of Fire Prevention and Control, established by the NFPCA, is the advancement of professional development of fire service personnel and other persons engaged in fire prevention and control. In this role, the academy contracts out the development of course curricula. Courses have been developed on: labor-management relations, administration of public fire education programs, fire safety, community planning, etc.

Dissemination

The NFPCA administers a variety of dissemination programs. The National Fire Reference Service collects, analyzes, and disseminates fire-relevant documentation, such as fire codes and regulations, to the user community. The reference service has recently developed and implemented an information dissemination network that routes priority and routine managerial reports to the fire service community. The National Fire Analysis and Information Service provides an accurate nationwide analysis of fire problems, identifies major problem areas, disseminates potential solutions to problems, and monitors the progress of programs to reduce fire losses.

For Further Information

Write Office of Information Services, National Fire Prevention and Control Administration, Department of Commerce, Washington, D.C. 20230.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5.281				5,281					5,281
1976	5.289				5,289					5,289
1977	6,111				6,111					6,111

The National Oceanic and Atmospheric Administration (NOAA) has the largest research and development budget in the Department of Commerce—a total of $148 million in fiscal 1977. Of that total, $6 million was obligated for social research activities. The agency conducts R&D on: ocean fisheries, marine life, the environment, and the weather.

In addition to its R&D activities, NOAA is responsible for administering mapping, charting, and survey services; ship support services; coastal management services; reporting and forecasting the weather of the United States; and providing satellite observations of the environment.

Research

Social research within NOAA is conducted primarily in two programs.

SEA GRANT PROGRAM This program area provides matching grants to public and private universities, institutes, and industries seeking solutions to problems related to the management and use of marine resources. Social research is conducted on marine environmental research and marine socioeconomic and legal research.

Marine environmental research attempts to manage and protect the coastal resources in the face of multiple-use conflicts. The Coastal Zone Management Program, which encourages optimum resource management through improved and realigned intergovernmental relationships at the federal, state, and local levels, has been studied. The social and economic impacts of offshore oil production in the New England region has been examined.

Social research is also conducted in the marine socioeconomic and legal research program. The program was prompted because many promising new commercial developments are either not undertaken or fail because of the absence of related information on the economy, law, regulations, and public opinion. Much of the early work in this program has involved organizing and analyzing the many existing federal, state, and local laws by which marine businesses must operate. With grants from NOAA, the rapidly changing marine and coastal zone laws have been monitored and interpreted by universities; economists, lawyers, and political scientists have studied the potential impact on the fishing industry of proposals for the enactment of limited-entry legislation by states and the international adoption of a 200-mile economic zone.

NATIONAL MARINE FISHERIES SERVICE The service is responsible for fostering the effective management, economic use, and protection of fisheries and the marine environment. Of major concern to the service is the economics of managing and using fishery resources. Economic analyses of the harvesting, processing, and marketing sectors of the fishing industry are undertaken; studies are conducted to identify and anticipate problems, assess developmental opportunities, and evaluate programs and policies concerning the commercial and recreation fishing sectors of the economy. Short-term research provides up-to-date documentation of the current situation and outlook for major U.S. fisheries and responses to problems concerning market shortages and gluts, price fluctuations, energy problems, and other federal, industry, and consumer needs.

For Further Information

See *The National Sea Grant Program: A Review*, a publication of NOAA, or write National Oceanic and Atmospheric Administration, Department of Commerce, 6010 Executive Blvd., Rockville, Md. 20852.

OFFICE OF MINORITY BUSINESS ENTERPRISE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,498	990			2,488	505			505	2,993
1976	362	1,004			1,366	517			517	1,883
1977	365	1,008			1,373	520			520	1,893

The mission of the Office of Minority Business Enterprise (OMBE) is to develop and coordinate a national program for minority business enterprises. Created in 1969, OMBE has the responsibility for coordinating the efforts of the federal government to establish, preserve, and strengthen minority businesses. The agency promotes the mobilization of activities and resources by public, private, state, and local organizations and other institutions toward the growth and expansion of minority businesses. OMBE also provides funds to establish and assist community-based business development organizations.

Research

Funds for the OMBE research program have decreased in recent years. After the agency was created, one of its major problems was the scarcity of solid data. Little was known about the number, size, capabilities, and locations of minority enterprises, and even less was known about the nature of the capital, marketing, and management gaps that hindered minority enterprises. As a consequence, OMBE's research program attempts to provide that knowledge.

OMBE is now funding an exhaustive study to identify the precise nature of the capital gap and to determine what economic incentives are needed to stimulate private investment in minority ventures. Other studies have examined the special problems of Asian-American businesspeople and of women starting and operating their own businesses and have surveyed the Hispanic markets in Chicago and San Antonio to determine buying patterns as an aid to Hispanic businesses.

Policy Formulation Demonstrations

Demonstration projects are funded by OMBE to gain additional knowledge about minority business conditions, ways to stimulate minority business development, and the causes and failures of minority business. Projects are also funded to test alternative methods of providing services currently being delivered through the existing system. The goal of these demonstrations is to gain new knowledge—clearly fitting the definition of policy formulation demonstrations.

OMBE is currently funding a project in which a business assistance organization is operating under an incentive fee contract. This project was designed to test the use of incentive fees as a stimulus toward greater productivity of OMBE organizations. Another project is testing the feasibility of the user-fee concept. OMBE has funded a project that tests the feasibility of a "factory representative" approach for minority businesses.

Policy Implementation Demonstrations

Demonstration projects are also funded by OMBE to promote a particular approach. These projects are intended to serve as models for others to use. OMBE has funded several demonstrations concerned with rural business development; one project dealt with improved marketing by a Chicano cooperative, and another dealt with marketing seafood products by Pacific Northwest Indian tribes. In both cases, it was the intention of these demonstrations to serve as models to be implemented by similar groups in other locations across the country.

For Further Information

Write Office of Minority Business Enterprise, Department of Commerce, Washington, D.C. 20230.

OFFICE OF TELECOMMUNICATIONS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			30		30			2,207	2,207	2,237
1976			30		30			1,505	1,505	1,535
1977			30		30			1,330	1,330	1,360

The major objective of the Office of Telecommunications (OT) is to help reduce uncertainty about the development of new high-technology telecommunications systems and services. Its primary mission is to improve human comprehension of telecommunications sciences and use the nation's growing telecommunications resources more effectively. The office has four major activities: conduct of telecommunications research and development; exploration of how telecommunications systems can be most efficiently used; conduct of engineering analysis; and providing of analysis to government policy makers. The office's social research activities involve providing analysis to government policy makers.

Prior to the July 1977 reorganization of the Executive Office of the President, the Office of Telecommunications worked directly for the Office of Telecommunications Policy (OTP) in the Executive Office of the President, providing OTP with background research and analysis that is vital to policy decision making in the telecommunications area. OT was funded by OTP. While the funds reported above were technically obligated by OTP, we have presented them under OT. The reorganization transferred OTP responsibilities to an expanded OT in the Department of Commerce.

Dissemination

The staff of the OT felt that its social research activities might best be described as "research synthesis," a dissemination activity, rather than as research. OT conducts little original research and instead attempts to synthesize existing knowledge. Its policy analysis activities are conducted by the Policy Support Division, which operates as a staff to the OTP. Projects of the Policy Support Division, which tend to be multidisciplinary, attempt to compile, analyze, and systematize research about the issues that come before OTP. These background data are aimed at assisting OTP in making policy decisions. The technical, legal, economic, and social aspects of issues are analyzed.

The Electronic Funds Transfer Systems (EFTS) were recently studied by OT because the systems posed a number of serious telecommunications policy questions: What overall social effects will EFTS have? What are the dangers of fraud or robbery by its customers? Might it encroach on an individual's privacy? How might the government use it? This study provided OTP with some of the information and analyses needed to determine the potential impact and policies toward EFTS.

The office has also recently analyzed and prepared syntheses on the following issues:

○ the regulatory problems, costs, demand, and potential impacts of "radio paging" systems;

○ the pricing systems that should be used in regard to cable television;

○ the impact on telecommunications of the Trade Act of 1974;

○ the telecommunications policies of 18 major foreign countries with regard to the United States;

○ regulatory laws on international telecommunications; and

○ review of transatlantic telecommunications facilities requirements—demand forecasting, cost analysis, and review of regulatory considerations.

For Further Information

Write Office of Telecommunications, Department of Commerce, 1325 G Street, N.W., Washington, D.C. 20005.

U.S. TRAVEL SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	483		235		718					718
1976	483		235		718					718
1977	518		235		753					753

The U.S. Travel Service (USTS) was established to develop, plan, and carry out a comprehensive program to stimulate and encourage travel to the United States by residents of foreign countries. By promoting tourism to the United States from abroad, the agency helps to alleviate the travel deficiency in our international balance of payments and promotes friendly understanding and good will among peoples of foreign countries and the United States.

Research

The Office of Research and Analysis within USTS assists in program planning and developing the overall marketing approach of the agency. Marketing research studies are designed to provide detailed data on the characteristics of potential travelers to the United States—their attitudes, preferences, and perceptions, with respect to the United States and other competitive destinations, etc. The office also assesses the origin and volume of current and future demand for travel to the United States. USTS attempts to improve the quality and comprehensiveness of tourism data as well. Specific studies have been:

○ general update of the consumer studies in primary USTS markets (Canada, Mexico, Japan, United Kingdom, Germany, and France). Information is obtained on travelers to the United States from these countries—their length of stay, purpose of travel, expenditures, degree of satisfaction with the trip, etc.;

○ research on the economic impact of international tourism in the United States in terms of income, jobs, and tax benefits at the national, state, and local levels; and

○ market segmentation studies that focus on selecting key segments within the countries in which USTS operates. Such studies will investigate particular travel segments such as the ski market, travel market, family market, etc.

Program Evaluation

This activity includes designing and implementing evaluations of the effectiveness of USTS programs and activities. These studies include:

○ market development evaluations: surveys on individuals who have traveled to the United States on tour programs that have received funding support by USTS, to determine the degree to which these programs developed "new" traffic to the United States;

○ sales development evaluations: attempts to determine the difference in growth rates in sales to the United States between retail travel agents whom USTS services (travel planning center) and those whom USTS does not service; and

○ promotional activity evaluation: surveys conducted to indicate the degree to which USTS advertisements are seen, read, and recalled in the marketplace.

For Further Information

Write U.S. Travel Service, Department of Commerce, Washington, D.C. 20230.

6 Department of Defense

The Department of Defense is the sixth-largest departmental funder of social knowledge production and application activities in the federal government. In fiscal 1977, the department obligated over $70 million in social knowledge production and application activities. Of the six defense agencies surveyed, the Department of the Army obligates the most money on social knowledge production and application activities; the Departments of the Navy and the Air Force are second and third.

Military support of the social sciences dates back to World War I. The armed services then began to utilize behavioral sciences to serve some of their needs, for example, the development of psychological testing. The social and behavioral sciences were utilized again by the military during World War II.

By the early 1950s, the Department of Defense accounted for approximately 40 percent of the total federal support for the social sciences. The Department of the Navy's Office of Naval Research was then a major funder of the social sciences. With the appearance of new social agencies during the 1960s, the department's percentage of total federal support declined. It remains, however, a major funder of social science research and related activities. During recent years, the Department of Defense has been a major supporter of the development of individualized computer instructional programs.

NOTE: This chapter was written with the assistance of Diane Rothberg.

The six Department of Defense agencies surveyed support similar human resources activities, which are tailored to meet the needs of the individual agencies. A major goal of Department of Defense social research is to improve the effectiveness of armed services personnel. In addition, research is funded to find ways to lower the department's costs in training, operating equipment, and utilizing personnel. All Department of Defense agencies support research concerning manpower selection and training techniques that aim to improve the selection, classification, training, utilization, and effectiveness of military personnel. All agencies also support some activities on human performance and human factors research, which is geared to improving the individual performance and capabilities of armed services personnel.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 6-1 presents the distribution of the Defense Department's social knowledge production and application activities. Research is the largest activity, accounting for nearly three-fourths of the department's social knowledge production and application activities in fiscal 1977. The second-largest category, accounting for 20 percent of the department's total, is the development of materials. As noted above, the major activity in this category is the development of computerized instructional courses and materials. In addition to developing training materials, the department also supports the development of testing materials. The remaining social knowledge production and application activities are supported in small amounts.

ORGANIZATION OF THE DEPARTMENT

Figure 6-1 is an organizational chart for the Department of Defense. As can be seen, social knowledge production and application activities are supported in a variety of department agencies and locations.

Table 6-2 lists the six agencies in the Department of Defense that support social knowledge production and application activities. As has already been noted, the Department of the Army supported the largest amount of social knowledge production and application in fiscal 1977. The primary goal of the department's research is the improvement of programs and activities. In 1970, the Congress, via the Mansfield amendment, mandated that all of the Department of Defense's research

TABLE 6-1 Department of Defense Social Knowledge Production *and Application Activities ($millions)*

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	39.1	40.1	53.5
	(66.1)[a]	(68.7)	(75.5)
Policy formulation demonstrations	3.7	2.5	0.5
	(6.3)	(4.3)	(0.6)
Program evaluation	0.2	0.4	0.1
	(0.3)	(0.6)	(0.1)
General purpose statistics	1.7	1.8	2.0
	(2.8)	(3.1)	(2.8)
Total	44.7	44.7	56.0
	(75.6)	(76.6)	(79.0)
Knowledge application			
Policy implementation demonstrations			
Development of materials	13.9	12.9	14.4
	(23.6)	(22.1)	(20.3)
Dissemination	0.5	0.7	0.5
	(0.8)	(1.3)	(0.7)
Total	14.4	13.7	14.9
	(24.4)	(23.4)	(21.0)
TOTAL	59.2	58.3	70.8
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

be mission-oriented research and development. Thus, the social knowledge production and application activities of the department are clearly aimed at supporting the mission of the department and improving its performance.

Within the Department of Defense, social knowledge production and application activities are supported in three different types of agencies. Four agencies (Army, Navy, Air Force, and the Civil Preparedness Agency) were classified as operating agencies. The Defense Advanced Research Projects Agency was classified as an R&D agency, since it is considered the R&D arm of the secretary of defense. Finally, the research supported in the offices of two assistant secretaries of defense is related to the information needs of the Office of the Secretary in establishing departmental policy.

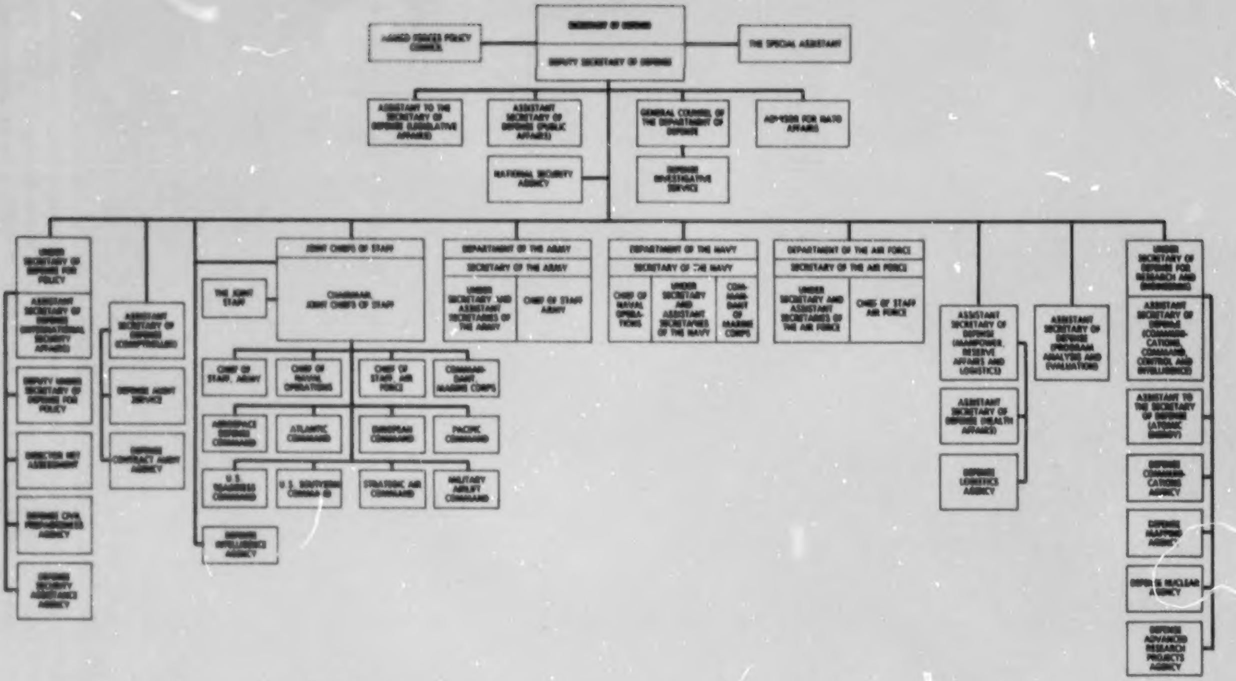
SECRETARY OF DEFENSE
DEPUTY SECRETARY OF DEFENSE
ARMED FORCES POLICY COUNCIL
THE SPECIAL ASSISTANT
ASSISTANT TO THE SECRETARY OF DEFENSE (LEGISLATIVE AFFAIRS)
ASSISTANT SECRETARY OF DEFENSE (PUBLIC AFFAIRS)
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
ADVISOR FOR NATO AFFAIRS
NATIONAL SECURITY AGENCY
DEFENSE INVESTIGATIVE SERVICE
UNDER SECRETARY OF DEFENSE FOR POLICY
ASSISTANT SECRETARY OF DEFENSE (INTERNATIONAL SECURITY AFFAIRS)
DEPUTY UNDER SECRETARY OF DEFENSE FOR POLICY
DIRECTOR NET ASSESSMENT
DEFENSE CIVIL PREPAREDNESS AGENCY
DEFENSE SECURITY ASSISTANCE AGENCY
ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER)
DEFENSE AUDIT SERVICE
DEFENSE CONTRACT AUDIT AGENCY
JOINT CHIEFS OF STAFF
THE JOINT STAFF
CHAIRMAN, JOINT CHIEFS OF STAFF
CHIEF OF STAFF, ARMY
CHIEF OF NAVAL OPERATIONS
CHIEF OF STAFF, AIR FORCE
COMMANDANT, MARINE CORPS
AEROSPACE DEFENSE COMMAND
ATLANTIC COMMAND
EUROPEAN COMMAND
PACIFIC COMMAND
U.S. READINESS COMMAND
U.S. SOUTHERN COMMAND
STRATEGIC AIR COMMAND
MILITARY AIRLIFT COMMAND
DEFENSE INTELLIGENCE AGENCY
DEPARTMENT OF THE ARMY
SECRETARY OF THE ARMY
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE ARMY
CHIEF OF STAFF ARMY
DEPARTMENT OF THE NAVY
SECRETARY OF THE NAVY
CHIEF OF NAVAL OPERA-TIONS
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE NAVY
COM-MAN-DANT OF MARINE CORPS
DEPARTMENT OF THE AIR FORCE
SECRETARY OF THE AIR FORCE
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE AIR FORCE
CHIEF OF STAFF AIR FORCE
ASSISTANT SECRETARY OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS)
ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)
DEFENSE LOGISTICS AGENCY
ASSISTANT SECRETARY OF DEFENSE (PROGRAM ANALYSIS AND EVALUATION)
UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING
ASSISTANT SECRETARY OF DEFENSE (COMMUNI-CATIONS, COMMAND, CONTROL AND INTELLIGENCE)
ASSISTANT TO THE SECRETARY OF DEFENSE (ATOMIC ENERGY)
DEFENSE COMMUNI-CATIONS AGENCY
DEFENSE MAPPING AGENCY
DEFENSE NUCLEAR AGENCY
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

FIGURE 6-1 Department of Defense organizational chart.

TABLE 6-2 Department of Defense Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Department of the Army	25.1	Research	Operating agency	Improvement of federal programs
Department of the Navy	17.7	Research	Operating agency	Improvement of federal programs
Department of the Air Force	15.6	Research	Operating agency	Improvement of federal programs
Defense Advanced Research Projects Agency	7.9	Research	R&D agency	Improvement of federal programs
Office of the Secretary	4.0	Research	Policy-making office	Improvement of federal policies
Civil Preparedness Agency	0.5	Research	Operating agency	Improvement of federal programs
TOTAL	70.8			

Numbers may not total due to rounding.
[a] See Chapter 2 for a more detailed discussion.

POLICY AREAS IN THE DEPARTMENT

Table 6-3 presents the agencies that fund social knowledge production and application activities by policy area. The largest policy area in the Department of Defense is employment and training, accounting for over 80 percent of the total social knowledge production and application obligations in fiscal 1977. This area includes both research and the development of training materials, which has been discussed above. The second-largest area, accounting for over 10 percent of the total, is the natural resources policy area. The major funder of natural resources knowledge production and application activities in the Department of Defense is the Department of the Army. The Army Corps of Engineers supports social knowledge production and application activities in that area.

For Further Information

For a description of the Defense Department's human resources research, see *Human Resources Research and Development Results Can Be Better Managed*, FPCD 77-43, General Accounting Office, Washington, D.C., April 22, 1977, or write Department of Defense, The Pentagon, Washington, D.C. 20301.

TABLE 6-3 Department of Defense Agencies: Social Knowledge Production and Application Activities by Policy Areas (fiscal 1977, $millions)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
Department of the Air Force			14.3 (91.8)		14.3 (91.8)					0.4 (2.6)	0.4 (2.6)	0.6 (3.8)	0.3 (1.8)	0.9 (5.6)		15.6 (100.0)
Department of the Army	1.2 (4.9)		15.7 (62.4)		16.9 (67.3)			2.1 (8.2)			2.1 (8.2)	5.7 (22.8)	0.4 (1.7)	6.2 (24.5)		25.1 (100.0)
Department of the Navy	0.2 (1.0)		16.2 (91.1)		16.3 (92.1)								1.4 (7.9)	1.4 (7.9)		17.7 (100.0)
Defense Civil Preparedness Agency							0.5 (100.0)				0.5 (100.0)					0.5 (100.0)
Defense Advanced Research Projects Agency			7.0 (88.9)		7.0 (88.9)					0.9 (11.1)	0.9 (11.1)					7.9 (100.0)
Office of the Secretary			4.0 (100.0)		4.0 (100.0)											4.0 (100.0)
TOTAL	1.4 (2.0)[a]		57.1 (80.7)		58.5 (82.6)		0.5 (0.7)	2.1 (2.9)		1.3 (1.8)	3.9 (5.4)	6.3 (8.9)	2.1 (3.0)	8.4 (11.9)		70.8 (100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are row percentages.

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,939	3,706			7,645					7,645
1976	4,847	2,141			6,988					6,988
1977	7,859				7,859					7,859

The Defense Advanced Research Projects Agency (DARPA) was established in 1958 as an operating agency under the director of defense research and engineering. In 1972, DARPA became a separate agency of the Department of Defense under the authority and control of the secretary of defense.

The agency provides for the conduct of basic and applied research and development for projects designated by the secretary of defense. The objective of the agency is to support advanced research and development and then transfer the results to the appropriate military service. In the conduct of its projects, DARPA uses the services of the military departments; other government agencies; private, industrial, and public entities; individuals; and educational and research institutions.

Research

Social research activities are supported in four major areas: human resources research; manpower research; forecasting and decision technology; and advanced training technology.

HUMAN RESOURCES This research is designed to improve the effectiveness of armed forces personnel in accomplishing their mission responsibilities under the full range of conditions that bear on military operations. Elements of the human resources research include studies on new learning strategies aimed at enhancing the acquisition of military job skills; studies on biocybernetics aimed at better military job performance based on improved human–computer communication; and performance studies aimed at developing more cost-effective measurements of military job performance. Human factors research is also supported. The goals of human factors research are to develop improved command, control, and communication systems by better design practices that take into account current theories of psychology concerning memory, learning, reasoning, problem solving, and perception.

MANPOWER The manpower research program is directed at developing new methods for analyzing the Defense Department's manpower system and applying such methods to specific problem assessments in terms of expected impact on manpower systems effectiveness. The manpower research program emphasizes issues in manpower procurement, management requirements, and training. Recent studies have examined enlisted specialty training; bonus management; post-service earnings for former military employees; North Atlantic Treaty Organization manpower; future military manpower requirements; and alternative compensation systems. In fiscal 1977, a longitudinal study of performance, retention, and career patterns was begun. This study will measure, for the first time, a longitudinal profile of individual productivity and retention in the Armed Services.

FORECASTING AND DECISION TECHNOLOGY This research program is aimed at enhancing the capability of national security planners and analysts in performing essential defense planning, forecasting, and intelligence functions. DARPA does not focus on substantive issues on what U.S. policy should be in a given area but instead concentrates on the development of methodological decision tools and models. Research is heavily quantitative and makes heavy use of computer technology. A major topic of research has been national security crisis management. This program area has developed short- and long-term crisis forecasting techniques as well as models for estimating the impact of international events based on military postures and previous decisions and statements; optimal organizational arrangements for managing crisis have also been examined.

ADVANCED TRAINING TECHNOLOGY In fiscal 1977, the computer-based instructional program shifted from a policy formulation demonstration emphasis to a research emphasis. Research is now being conducted on ways to produce high-quality instructional materials in a cost-effective manner. Research is also continuing to evaluate what has been learned about computer-based delivery training systems.

Policy Formulation Demonstrations

In fiscal 1975 and fiscal 1976, DARPA supported a series of policy formulation demonstrations on manpower policy and manpower training. The first policy formulation demonstration consisted of a controlled experiment on the effect of altered reserve enlistment tours. The results of the experiment demonstrated that reducing the length of the enlistment tour would not provide enough additional enlistment to offset future man-year losses resulting from the shortened tour.

A second series of policy formulation demonstrations tested the cost-effectiveness of a prototype computer-based instructional system. Preliminary results of the demonstration showed that the computer-based instruction was highly reliable, the system response time was good, performance of students was equal or superior to conventionally trained students, considerable time savings occurred, and students and instructors had positive attitudes toward the use of computers.

For Further Information

See *Defense Advanced Research Projects Agency: Fiscal Year 1977 Research and Development Program*, Statement by George H. Heilmeier, Director, before the Subcommittee on Research and Development of the House Appropriations Committee, 94th Congress, 2nd session, 1976, or write Defense Advanced Research Projects Agency, Department of Defense, 1400 Wilson Boulevard, Arlington, Va. 22209.

DEFENSE CIVIL PREPAREDNESS AGENCY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,097				1,097		30		30	1,127
1976	782				782		170		170	952
1977	470				470		50		50	520

The function of the Defense Civil Preparedness Agency (DCPA) is to coordinate and provide direction to the activities of federal, state, and local governments in developing and executing civil defense programs. The agency provides planning, technical training, and financial assistance and donates property to state and local governments for civil preparedness purposes.

Research

The major purpose of DCPA research is to produce information that will enable planners and policy makers to improve the effectiveness and efficiency of civil preparedness programs. Studies have focused on estimating the cost, effectiveness, and feasibility of alternative civil preparedness systems for the future. Research is funded in the following areas.

RELOCATION PLANNING Research projects cover the economical, industrial, governmental, safety, and human welfare aspects of relocation during a crisis. Specific studies have analyzed public attitudes toward crisis relocation and assessed the economic viability of various local areas during crisis relocations.

SYSTEMS ANALYSIS Research is funded to develop models to predict and evaluate warning and communication alternatives. Model development is also funded on emergency systems and resource systems at national and regional levels. A strategic assessment of the civil preparedness impact of SALT alternatives has also been funded.

Development of Materials

The development of curriculum materials for training in civil preparedness courses is supported by the agency.

For Further Information

See *FY 1975 Research Summaries* (no date) and *Taking Measure: Fourth Annual Report of the Defense Civil Preparedness Agency* (June 1975), publications of DCPA, or write Defense Civil Preparedness Agency, The Pentagon, Washington, D.C. 20301.

DEPARTMENT OF THE AIR FORCE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,240				3,240		6,608		6,608	9,848
1976	3,963				3,963		5,750	150	5,900	9,863
1977	9,103				9,103		6,250	200	6,450	15,553

The Department of the Air Force is responsible for providing an air force that is capable, in conjunction with other armed forces, of preserving the peace and security of the United States.

Research

Social research is funded by the Department of the Air Force on the following areas.

INTERNATIONAL AFFAIRS This area includes funding for Project RAND, which has provided independent scientific, technical, and analytical advice and expertise to the air force decision-making process. RAND has studied the history of strategic arms competition, defense postures of the North Atlantic Treaty Organization, Warsaw Pact issues, and deterrence force capabilities.

MANPOWER, PERSONNEL, AND TRAINING This is the largest area of social research in the department. The departmental increase in research funding between fiscal 1976 and fiscal 1977 is found in this research area. Research has been supported on the following topics.

Manpower Projections Simulation models have been developed to forecast future manpower requirements. Studies have also analyzed the Reserve Officers' Training Corps Program and the future of the Physician Corps under various volunteer options. The effect of the volunteer force on the retention of enlisted personnel has also been examined.

Human Factors This research is geared to increasing the performance, productivity, and motivation of air force personnel. Predictive models have been developed for anticipating human performance in various aerospace systems.

Personnel Systems Research has been funded to improve the effective utilization of air force personnel and improved personnel selection and classification systems. Studies have assessed the degree to which adaptability and career motivation varies as a function of personnel management policies. Psychological and environmental factors have also been analyzed to study reenlistement patterns.

Training The Air Force Human Resources Laboratory is responsible for analyzing the effective utilization of training and simulation procedures, techniques, and devices. The effectiveness of alternative training techniques are studied. Studies analyze the cost-benefit features of simulation training models.

ENVIRONMENTAL QUALITY AND ENERGY A limited number of studies are funded in this area. Studies have examined alternative methods to enable the air force to meet national objectives in energy conservation and environmental quality. Environmental assessment models have also been developed.

Development of Materials

The air force supports the development of innovative training and educational materials. The major purpose of this program is to improve the cost-effectiveness and quality of technical training. The air force develops instructional materials that will apply the latest training techniques to current operational programs. In addition, alternative training methods and techniques are tested. An example of the development of instructional materials and techniques is the Advanced Instructional System. This was a major effort to develop and demonstrate the feasibility and effectiveness of a system of large-scale, computer-managed, self-paced, individualized instruction.

In addition to the development of instructional materials, the air force supports the development of testing materials. The air force supported the development of a nonverbal aptitude test aimed at eliminating cultural bias in testing. Vocational Aptitude Battery Tests have also been developed by the air force.

Dissemination

The department supported the publication and distribution of a handbook on energy conservation.

For Further Information

Write Department of the Air Force, The Pentagon, Washington, D.C. 20330.

DEPARTMENT OF THE ARMY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	16,552	40	200	1,676	18,468		4,468	490	4,958	23,426
1976	16,833	155	350	1,790	19,128		3,773	596	4,369	23,497
1977	18,212	250	50	1,963	20,475		4,379	290	4,669	25,144

The mission of the Department of the Army is to organize, train, and equip active-duty and reserve forces for the preservation of peace, security, and the defense of the nation. The army's major mission is on-land operations. In addition to its military responsibilities, the Department of the Army administers programs aimed at protecting the environment, improving waterway navigation, flood and beach control, water resource development, and providing civil defense assistance.

Research

Of the six Department of Defense agencies included in this survey, the Department of the Army has the largest social research obligations. The army's research activities are focused in the following areas.

PERSONNEL AND TRAINING Much of the work in this area is done inhouse by the Army Research Institute for Behavioral and Social Sciences. Some work is also done by universities and private research organizations. Research is conducted on the following topics.

Manpower and Personnel Manpower studies have been performed concerning the volunteer force, enlistee attitudes, and future manpower goals. Research has also looked at the role of women in the army and the range of military jobs that they can perform effectively. Army career patterns have also been studied.

Education and Training Research is performed on improved methods for training individuals in the army. Some research is expected to lead to development of training systems, such as field training simulations for commanders. Other research is supported to predict the effectiveness of training devices at an early stage in their development.

Human Factors This research is aimed at preparing the U.S. army soldier to adapt and perform within the broad range of environments required by the army. Research has examined human perceptual limits, the human–machine interface, methods to enhance human performance, and methods to sustain performance while taking into account stress and fatigue factors.

Manpower Systems Management Research is supported on manpower systems management and technology in order to increase soldier productivity. Research is funded on ways to improve enlistee personnel selection and classification systems. Research examines techniques to sustain motivation and morale as well as to improve military efficiency in the volunteer environment.

ENVIRONMENTAL QUALITY The Army Corps of Engineers supports social research to assess the environmental effects of proposed facilities. In its environmental technology program, the army supports research aimed at developing methods for quantitatively describing environmental conditions, developing noise prediction models, and developing environmental standards for soil contamination and hazardous waste disposal. In addition, the Army Corps of Engineers has an environmental quality program concerned with the effects of its own construction and water resource projects on the environment. Social research is also carried out on environmental impact assessment, reservoir water quality, and wastewater management.

WATER RESOURCES PLANNING The Army Corps of Engineers conducts water resources planning studies. These studies are concerned with developing methods and analytical techniques for use in water resources planning and management activities. The corps has a policy research program that analyzes how to determine equity in distributing costs and benefits in water resource projects. The planning methodology program supports studies on the effect of water resource projects on regional development and the supply and demand for urban nonreservoir recreation.

MILITARY CONSTRUCTION AND ENGINEERING The objective of this research is to improve the methods for planning and designing military power systems by developing a decision process for evaluating power system performance, reliability, and life cycle cost in terms of the capability of power systems to fulfill user requirements.

MILITARY PSYCHIATRY Prior to fiscal 1976, a major thrust of the army's military psychiatry program was drug and alcohol abuse research. This program has been discontinued. Current emphasis is given to the study of the mental health of soldiers. Research has developed indicators of stress and predictors for the reduction of manpower losses and personnel turnover due to psychiatric and psychosomatic illnesses.

Policy Formulation Demonstrations

A small number of demonstrations are funded to test new training procedures.

Program Evaluation

A major evaluation was funded to ascertain the effectiveness of race relations improvement programs in the U.S. army.

General Purpose Statistics

The Army Corps of Engineers collects general purpose statistics on the movement of commodities and vessels in the ports, harbors, waterways, and canals of the United States and its territories and possessions.

Development of Materials

As in two other armed services, the navy and the air force, many resources have been devoted to the development of testing materials and training materials. The army supported the development of a cost-effective, equitable, and realistic performance-based test in lieu of written tests for measuring levels of skill in army jobs. In the area of training, a major program has been the development of the Training Extension Course (TEC), which is a multimedia individualized instruction system. A wide variety of individualized training courses have been prepared, ranging from various military skills (operating a gun, etc.) to the fundamentals of leadership. The army expects TEC to become its main instructional method, replacing instruction by human trainers. Studies have shown that soldiers trained by TEC performed significantly better and at less cost than those trained under the conventional human instructor program.

Dissemination

The army has prepared handbooks in a variety of areas, including ways to improve race relations in the army, dealing with alcohol and drug abuse problems in the army, and environmental impact analysis (for the Army Corps of Engineers).

For Further Information

Write Department of the Army, The Pentagon, Washington, D.C. 20301.

DEPARTMENT OF THE NAVY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	11,347				11,347		2,831		2,831	14,178
1976	10,337	200			10,537		3,212		3,212	13,749
1977	13,851	200			14,051		3,698		3,698	17,749

The primary mission of the Department of the Navy is to protect the United States at sea during a time of war, support the forces of all military departments of the United States, and maintain freedom of the seas.

Research

The Department of the Navy supports research similar to that of the Departments of the Air Force and the Army. Social research is supported in the following areas.

MANPOWER, PERSONNEL, AND TRAINING As is the case with the Department of the Air Force, this is the largest area of social research in the Department of the Navy. Research focuses on the following topics.

Organizational Effectiveness These studies are concerned with the morale, motivation, leadership, and organizational unity within the navy. Research is funded to develop future improvements in the productivity and morale of the navy and attachment to the naval organization. Research is supported to better understand the psychological process by which individuals become attached to, or identified with, an organization. Specific aspects of the organizational environment that influence military effectiveness are examined. Job satisfaction is analyzed as well.

Personnel This group of studies is concerned with the recruitment, selection, classification, assignment, retention, and performance evaluation of navy personnel. Research is funded to analyze the factors or variables that affect the interaction between individuals and their jobs. More reliable techniques to improve selection, classification, and promotion decisions are also sought.

Training Research on training is directed at developing new techniques to improve navy training methodologies and procedures. Research is supported to identify training variables that will reduce training school attrition. Research also measures the proficiencies necessary for various jobs.

Manpower This group of studies is concerned with the development of future manpower projections. The impact of the all-volunteer force concept has been studied. Modeling is used to assist in decision making related to manpower planning. Indicators of attrition, retention, and manpower costing have also been developed.

ENERGY PLANNING Research is supported to determine the pattern of energy use and fuel consumption in the navy in order to provide a basis for projected navy energy requirements. Alternative energy sources have also been analyzed as well as the potential of comprehensive energy conservation in the navy. The navy has also supported an economic analysis of the pricing of natural and synthetic crude oil.

HEALTH SERVICES DELIVERY Research is funded to analyze health maintenance systems in the navy and marine corps. New methods of medical and dental care are also being analyzed. Research has examined the potential of improving medical screening to enhance personnel performance in naval aviation and shipboard and field environments. Studies have also examined automated medical and dental record keeping processes and computer-assisted health care delivery. Alcoholism rates among second enlistment sailors have also been examined.

Development of Materials

As with the Departments of the Army and the Air Force, the Department of the Navy has supported the development of computer-assisted training methods. Mini-computers for training have also been developed. These projects are aimed at improving training efficiency and management.

In addition to the development of individualized computer-assisted training packages, the navy also supports the development of specialized testing techniques to enhance individualized testing of trainees with varying background experience. Tests have been developed that minimize cultural bias in word and picture analogy tests.

For Further Information

Write Department of the Navy, The Pentagon, Washington, D.C. 20350.

OFFICE OF THE SECRETARY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,990				2,950					2,950
1976	3,300				3,300					3,300
1977	4,000				4,000					4,000

The Office of the Secretary of Defense consists of the director of defense research and engineering, nine assistant secretaries of defense, the general counsel, and several other staff offices. The heads of each office within the Office of the Secretary are civilian staff advisers to the secretary.

Research

Social research is conducted by the offices of two assistant secretaries for defense.

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE—INTERNATIONAL SECURITY AFFAIRS This office is responsible for the development and coordination of Department of Defense positions, policies, plans, and procedures in international, political–military, and foreign affairs. In support of that mission, the office supports a foreign affairs research program that focuses on an assessment of international trends and military affairs for their particular bearing on long-range defense policy and planning. Specific areas of research have included: Soviet policies and perceptions, national security policy, long-range U.S.–U.S.S.R. competition, the implications of the military buildup in nonindustrial states, and the political and military situation in Portugal.

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE—MANPOWER AND RESERVE AFFAIRS The office is responsible for manpower and personnel plans, policy, and management; manpower requirements; military and civilian compensation; reserve components and Reserve Officers' Training Corps affairs; and education and individual training. The office supports policy-related research on a series of manpower issues. Specific areas of concern are an analysis of manpower programs, methodologies for training programs, the effectiveness of civilian armed forces, and future manpower requirements.

For Further Information

Write Office of the Assistant Secretary of Defense (International Security Affairs), Department of Defense, The Pentagon, Washington, D.C. 20301, or Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs), Department of Defense, The Pentagon, Washington, D.C. 20301.

7 Department of Energy

The Department of Energy, created in July 1977, consolidates into a single department all the energy programs and powers that were previously scattered throughout the federal government. The new department was given all the powers held by the Federal Power Commission, the Federal Energy Commission, and the Energy Research and Development Administration—three agencies that are now abolished. In addition, the new department gained control over energy programs that were housed in five other federal agencies. An organizational chart for the department is presented in Figure 7-1.

The Department of Energy will contain an Office of Energy Research and a central energy data collection and analysis program. The Office of Energy Research will be responsible for monitoring the department's research and development programs and advising the secretary of the department on those matters.

While it is impossible to know how much social research and related activities will be conducted by the Department of Energy, the three agencies that were taken over by the department obligated nearly $30 million in social knowledge production and application activities in fiscal 1977. Table 7-1 lists the agencies completely taken over by the Department of Energy and their fiscal 1977 social knowledge production and application activities.

For Further Information

Write Department of Energy, Washington, D.C. 20545.

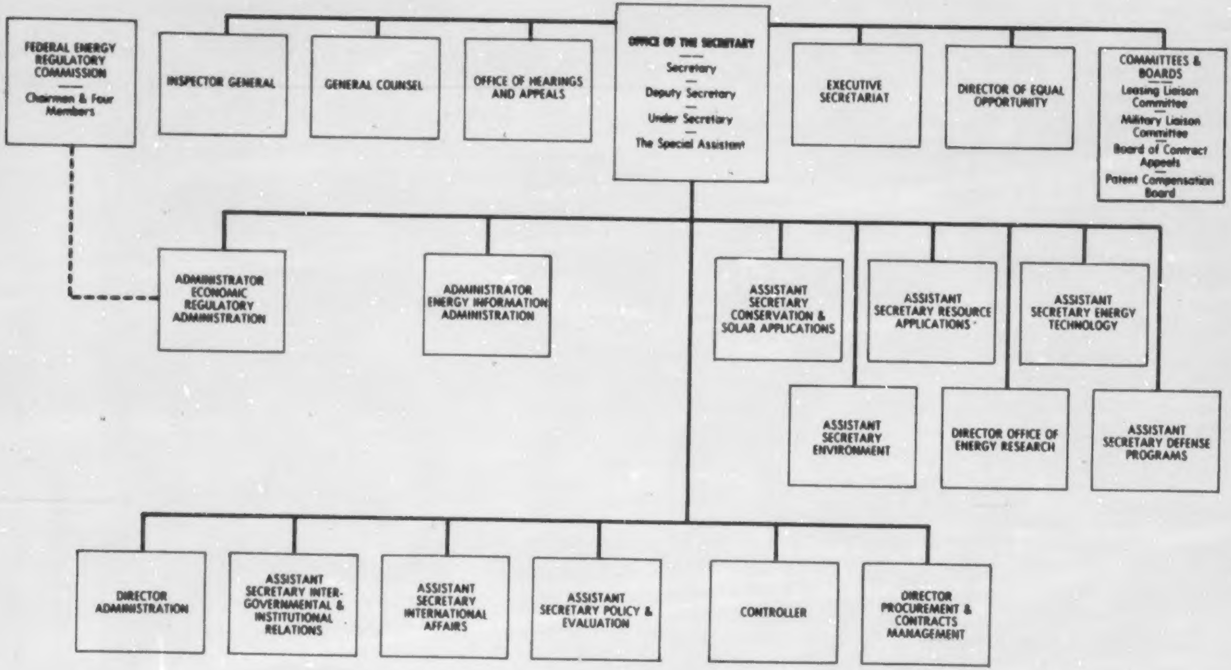
FEDERAL ENERGY REGULATORY COMMISSION
Chairman & Four Members
INSPECTOR GENERAL
GENERAL COUNSEL
OFFICE OF HEARINGS AND APPEALS
OFFICE OF THE SECRETARY
Secretary
Deputy Secretary
Under Secretary
The Special Assistant
EXECUTIVE SECRETARIAT
DIRECTOR OF EQUAL OPPORTUNITY
COMMITTEES & BOARDS
Leasing Liaison Committee
Military Liaison Committee
Board of Contract Appeals
Patent Compensation Board
ADMINISTRATOR ECONOMIC REGULATORY ADMINISTRATION
ADMINISTRATOR ENERGY INFORMATION ADMINISTRATION
ASSISTANT SECRETARY CONSERVATION & SOLAR APPLICATIONS
ASSISTANT SECRETARY RESOURCE APPLICATIONS
ASSISTANT SECRETARY ENERGY TECHNOLOGY
ASSISTANT SECRETARY ENVIRONMENT
DIRECTOR OFFICE OF ENERGY RESEARCH
ASSISTANT SECRETARY DEFENSE PROGRAMS
DIRECTOR ADMINISTRATION
ASSISTANT SECRETARY INTER-GOVERNMENTAL & INSTITUTIONAL RELATIONS
ASSISTANT SECRETARY INTERNATIONAL AFFAIRS
ASSISTANT SECRETARY POLICY & EVALUATION
CONTROLLER
DIRECTOR PROCUREMENT & CONTRACTS MANAGEMENT

FIGURE 7-1 Department of Energy organizational chart.

TABLE 7-1 Agencies Consolidated in the Department of Energy that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agencies Prior to Consolidation	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Energy Research and Development Administration	21.7	Research	R&D agency	Advancement of knowledge
Federal Energy Administration	5.3	Research	Operating agency	Improvement of federal program
Federal Power Commission	2.6	Research	Operating agency	Improvement of federal program
TOTAL	29.6			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1976	12.105				12.105					12.105
1977	21,750				21,750					21,750

The Energy Research and Development Administration (ERDA) was established by the Energy Reorganization Act of 1974 and began actual operations in 1975. The immediate purpose of ERDA was to reorganize and consolidate federal activities relating to research and development on the various sources of energy; the reorganization aimed to develop and increase the efficiency and reliability of the use of all energy sources to meet the needs of present and future generations. ERDA brought together in a single agency all the major energy research and development programs of the federal government aimed at finding ways to increase the supply of energy as well as to conserve the energy already available. Because ERDA was created in the middle of fiscal 1975, no figures are available for that year.

The role of social research in ERDA is discussed in the Office of Technology Assessment's *Comparative Analysis of the 1976* ERDA *Plan and Program*, which concluded that the ERDA's R&D program did not give enough attention to socioeconomic analysis and research in addressing the nation's energy problems.

Research

Social research was funded in nearly every program area in ERDA.

FOSSIL ENERGY The principal objective of this program is to expand the production of coal and accelerate the development of technology for converting coal to environmentally acceptable gas and liquid fuel. Examples of social research in the fossil energy area include:

- economic feasibility of Alaskan coal development;
- potential regional markets for coal conversion products;
- economic evaluation of coal-based synthetic crude;
- social, economic, and land-use impacts of coal conversion complexes; and
- environmental impacts of coal conversion facilities and technologies.

SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS The goal of this program is to work with industry to develop, demonstrate, and introduce those solar energy and geothermal heat systems that are economically attractive and environmentally acceptable for supplementing the nation's energy resources. Examples of social research in this area include:

- cost-benefit analysis of geothermal energy projects;
- identification of the major technological, economic, institutional, legal, and other barriers to the widespread instruction and use of different types of solar energy systems in the private and public sectors;
- socioeconomic assessment of geothermal development in the Imperial Valley, California; and
- economic analysis of the cost of solar heating.

NUCLEAR ENERGY A major responsibility of ERDA is working with American industry to design, develop, and demonstrate increasingly more effective nuclear power systems to meet the nation's growing demand for electricity and to determine whether these systems are safe in operation, economically feasible, and environmentally clean. Examples of social research in this area include:

- the role of nuclear energy in the western United States;
- examination of the regulatory and other legal issues, institutional constraints, political issues, and societal concerns affecting timely completion of the light water reactor fuel cycle;
- analysis of public perception related to nuclear fuel cycle activities; and
- transportation issues related to shipping radioactive materials.

ENERGY CONSERVATION ERDA supports research and development to improve technologies that can use energy more efficiently, provide alternative and more efficient fuels, and eliminate wasteful habits of energy consumption. Examples of social research in this area include:

- socioeconomic impacts associated with conservation projects;
- design of a methodology to analyze second-order environmental and economic impact of energy-conserving technology;
- strategy/economic analyses in transition from oil and gas to alternate fuels in energy conversion devices; and
- development of energy conservation planning methodologies.

PLANNING AND ANALYSIS In addition to social research performed by the divisions described above, the Office of the Assistant Administrator for Planning and Analysis also supports social research. Examples of research supported by that office include:

- development of economic, energy, and environmental models;
- a study of patent policy;
- a study of socioeconomic impacts of Western energy;
- market assessments for new technologies in utilities, industry, transportation, and buildings; and
- a venture analysis of technology development.

For Further Information

See ERDA, *A National Plan for Energy Research, Development and Demonstration: Creating Energy Choices for the Future*, Vols. 1 and 2, U.S. Government Printing Office, Washington, D.C., 1975; Office of Technology Assessment, *An Analysis of the ERDA Plan and Program, May 1976*, U.S. Government Printing Office, Washington, D.C., 1976.

FEDERAL ENERGY ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1976	4,589				4,589			159	159	4,748
1977	4,985				4,985			334	334	5,319

The Federal Energy Administration (FEA) was established in 1974 for the purpose of ensuring that the supply of energy available to the United States would continue to be sufficient to meet the total national energy demand. FEA was also given the responsibility for ensuring that, in case of energy shortages, priority needs for energy would be met and that the burden of shortages would be equitably borne. Because the agency was not in operation for all of fiscal 1975, no figures are available for that year.

Research

Social research in the FEA is carried out in three major areas.

ENERGY POLICY AND ANALYSIS Through quantitative analysis of various policy alternatives and assessment of the economic and social effects of these alternatives, statistical and analytical studies are produced on which FEA could base the formulation and evaluation of energy policy. Specific areas of inquiry are:

Energy Forecasting and Statistical Analysis FEA develops, applies, and maintains advanced econometric and process models of the energy system required for analyzing policy issues. Short- and long-range forecasts of energy supply and demand distribution and the relationships between energy and economic factors are supported. Examples of such models include:

- ○ development of price modeling and forecasting capabilities for crude petroleum and petroleum products;
- ○ development of a natural gas forecasting system to evaluate alternatives on a regional basis in order to respond to policy options;
- ○ development of a sector-specific, regional-specific model of the

fuel and power demands for energy that could be used to forecast energy demands through 1990 as a function of prices and other economic variables; and

○ development of a model of energy demand in the household sector with sufficient structure to allow analyses of the demand impacts of conservation options in this sector.

Economic Impact Analysis This activity provides: (1) assessments of the state of the economy, (2) analyses of the effects on the economy of changes in energy supply and demand, and (3) analyses of energy-related policy proposals to achieve energy independence. Studies include those mandated by Congress and the executive branch, for example, macroeconomic and socioeconomic studies, inflationary impact statements, analyses of constraints on energy resources development, and assessments of the regional impacts of energy policies, of the effects of regulations and prices on market structure, and of energy-producing and energy-conserving industries. A major focus of inquiry is the analysis of competition, market structure, and regulations.

Energy Policy Development As a result of the Energy Policy and Conservation Act, FEA analyzes a number of major policy issues: Alaskan oil pricing, possible change in entitlements programs, possible decontrol for downstream price and allocation controls, and the revisions to the mandatory oil import program.

ENERGY CONSERVATION AND ENVIRONMENT The promotion of efficiency in the use of energy resources is one of FEA's general missions, and research is supported to plan and analyze a variety of issues concerning energy conservation. Cost-benefit and macroeconomic studies are performed for selected major energy conservation measures, including the improvement of automobile efficiency, industrial energy use, and electric utility load management.

INTERGOVERNMENTAL, REGIONAL, AND SPECIAL PROGRAMS A limited amount of social research is funded on energy problems related to state and local governments, special impact groups (the poor, the elderly, and the handicapped), and small businesses.

Dissemination

The FEA supports the National Energy Information Center, which is an information retrieval system that provides quick access to information on a broad range of energy issues.

FEDERAL POWER COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2.525				2.525					2.525
1976	2.600				2.600					2,600
1977	2,650				2.650					2,650

The Federal Power Commission (FPC) regulates the interstate aspects of the electric power and natural gas industries. The FPC has regulatory power over natural gas pipelines, nonfederal hydroelectric power projects, and electric power and natural gas producers. The FPC is responsible for seeing that the nation's consumers have adequate supplies of gas and electricity at the lowest reasonable rates.

Research

Research is conducted by four offices in the FPC. The Bureau of Power is responsible for regulating the power supply; its research activities are concerned with determining the economic and environmental effects of FPC decisions concerning power. The Bureau of Natural Gas is responsible for regulating the production and distribution of natural gas; its research efforts are focused on determining the economic and environmental effects of decisions concerning natural gas production and distribution. The Office of Energy Systems performs a policy planning and analysis function while coordinating the commission's environmental impact statements.

The major research arm of the commission is its Office of Economics, which prepares basic economic and statistical studies. It conducts research and advises the commission on the economic implications of policy issues in pending cases and proposed legislation involving the commission. Within the Office of Economics, the Division of Econometric Analysis applies advanced statistical and mathematical tools in developing quantitative inputs for the commission's regulatory decisions. The division has examined the following issues: factors affecting the supply and demand of natural gas; geographic price differentials for natural gas producers; cost behavior in regulated industries; the price elasticity of demand; and long-term energy requirements. Another division within the office, the Division of Economic Studies, is responsible for preparing comprehensive economic analyses, for example, on the probable economic consequences of alternative regulatory actions; recommendations concerning current and emerging policy issues; the economic factors basic to the efficiency of performance of electric utility and gas pipeline companies; and long-range needs for electric power and natural gas and how those needs can be met at the lowest possible costs.

8 Department of Health, Education, and Welfare: Introduction

The Department of Health, Education, and Welfare (HEW) is the largest departmental funder of social knowledge production and application activities in the federal government—obligating more than $700 million in fiscal 1977. The department was established in 1953 when the government's human service programs were consolidated into a cabinet-level unit. Several HEW agencies, however, date back to the 1800s; the Office of Education, for example, was established in 1867 to collect and disseminate statistics about education.

The social knowledge production and application activities of HEW have several striking characteristics. *First is the large amount of resources devoted to social knowledge production and application in the department.* HEW obligates nearly 40 percent of the federal government's social knowledge production and application total. In fiscal 1977, the department obligated more than 2.5 times that of the second-largest departmental funder of social knowledge production and application—the Department of Agriculture.

A second characteristic of HEW *is its diversity.* Several agencies, such as the Social Security Administration, have strong in-house research units, while other agencies, such as the Office of Human Development Services, rely almost exclusively on extramural funding. The department supports a diverse set of activities—social experiments, longitudinal data studies, econometric modeling, large-scale demonstration projects, etc.

Third, the department is characterized by the predominance of "third parties" as the major audience for its social knowledge produc-

TABLE 8-1 Department of Health, Education, and Welfare Social Knowledge Production and Application by Primary Goal or Audience (fiscal 1977, $millions)

Goal or Audience	Total Obligations for Social Knowledge Production and Application	Percentage of Obligations
Improvement of federal programs	77.8	10.8
Improvement of federal policies	54.6	7.6
Knowledge for third parties	454.7	63.3
Advancement of knowledge	95.1	13.2
Statistical collection	35.7	5.0
TOTAL	717.9	99.9

Numbers may not total due to rounding.

tion and application activities. Table 8-1 shows that more than 60 percent of the department's total knowledge production and application is produced for third parties, such as state and local decision makers and professional practitioners (teachers, social workers, hospital administrators, etc.). In many ways, HEW is the prototypical social R&D department. The department confronts many of the problems of social R&D, problems such as obtaining third-party input into the department's social R&D agenda and effectively disseminating the results. The department is discussed in *Studies in the Management of Social R&D: Selected Policy Areas,* volume 3 in the Study Project series.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 8-2 presents the distribution of the department's social knowledge production and application activities. The largest category is research, accounting for one-third of the department's total social knowledge production and application. The second-largest category is policy formulation demonstrations. The policy formulation category includes the social experiments conducted by the Office of the Assist-

TABLE 8-2 Department of Health, Education, and Welfare Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	230.3	242.7	242.5
	(33.5)[a]	(33.3)	(33.8)
Policy formulation demonstrations	165.3	155.3	144.2
	(24.1)	(21.3)	(20.1)
Program evaluation	33.0	38.4	38.0
	(4.8)	(5.3)	(5.3)
General purpose statistics	30.6	37.3	35.4
	(4.4)	(5.1)	(4.9)
Total	459.1	473.7	460.2
	(66.8)	(64.9)	(64.1)
Knowledge application			
Policy implementation demonstrations	107.0	130.0	120.5
	(15.6)	(17.8)	(16.8)
Development of materials	55.9	61.9	54.5
	(8.1)	(8.5)	(7.6)
Dissemination	65.2	63.8	82.6
	(9.5)	(8.7)	(11.5)
Total	228.1	255.7	257.7
	(33.2)	(35.1)	(35.9)
TOTAL	687.3	729.4	717.9
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

ant Secretary for Planning and Evaluation. The third-largest category is policy implementation demonstrations, which are largely funded by the Office of Education and are aimed at disseminating successful procedures to local schools.

It is interesting to note that the department's ratio of knowledge production to knowledge application is nearly two to one, almost the same as that of the government as a whole.

ORGANIZATION OF THE DEPARTMENT

Figure 8-1 presents an organizational chart of the department. The chart reflects reorganizations that took place in the department throughout 1977.

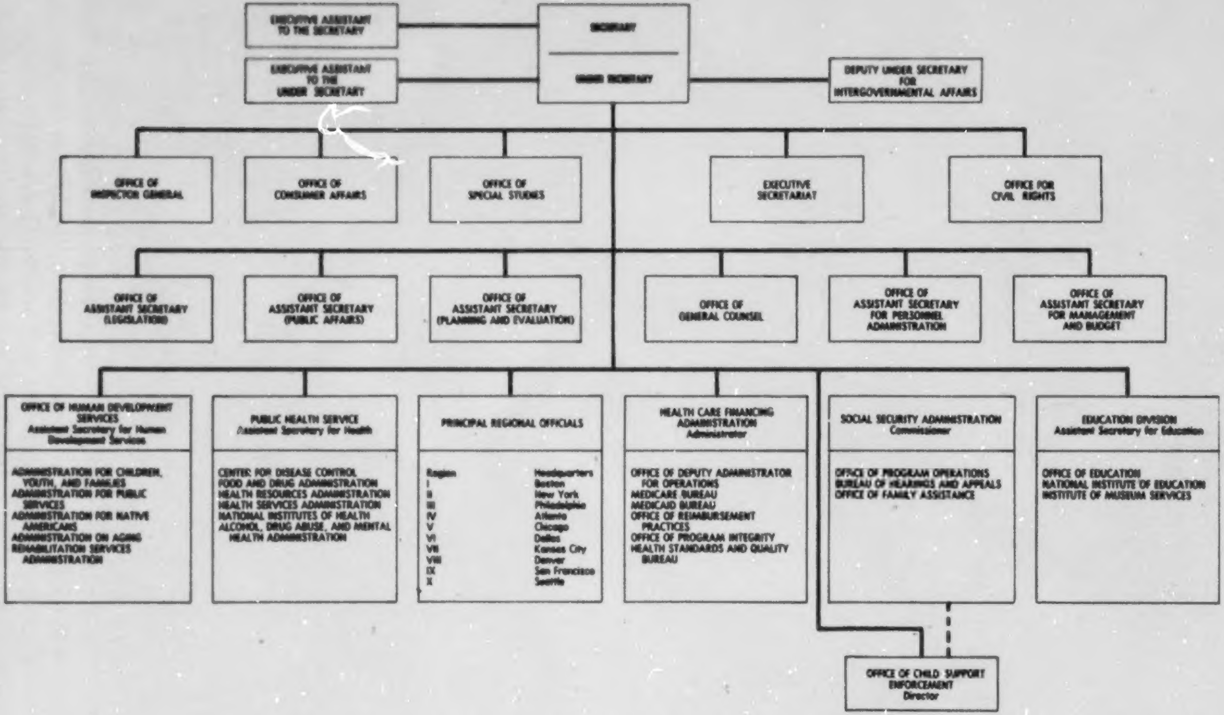
EXECUTIVE ASSISTANT TO THE SECRETARY
EXECUTIVE ASSISTANT TO THE UNDER SECRETARY
SECRETARY
UNDER SECRETARY
DEPUTY UNDER SECRETARY FOR INTERGOVERNMENTAL AFFAIRS
OFFICE OF INSPECTOR GENERAL
OFFICE OF CONSUMER AFFAIRS
OFFICE OF SPECIAL STUDIES
EXECUTIVE SECRETARIAT
OFFICE FOR CIVIL RIGHTS
OFFICE OF ASSISTANT SECRETARY (LEGISLATION)
OFFICE OF ASSISTANT SECRETARY (PUBLIC AFFAIRS)
OFFICE OF ASSISTANT SECRETARY (PLANNING AND EVALUATION)
OFFICE OF GENERAL COUNSEL
OFFICE OF ASSISTANT SECRETARY FOR PERSONNEL ADMINISTRATION
OFFICE OF ASSISTANT SECRETARY FOR MANAGEMENT AND BUDGET
OFFICE OF HUMAN DEVELOPMENT SERVICES
Assistant Secretary for Human Development Services
ADMINISTRATION FOR CHILDREN, YOUTH, AND FAMILIES
ADMINISTRATION FOR PUBLIC SERVICES
ADMINISTRATION FOR NATIVE AMERICANS
ADMINISTRATION ON AGING
REHABILITATION SERVICES ADMINISTRATION
PUBLIC HEALTH SERVICE
Assistant Secretary for Health
CENTER FOR DISEASE CONTROL
FOOD AND DRUG ADMINISTRATION
HEALTH RESOURCES ADMINISTRATION
HEALTH SERVICES ADMINISTRATION
NATIONAL INSTITUTES OF HEALTH
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION
PRINCIPAL REGIONAL OFFICIALS
Region Headquarters
I Boston
II New York
III Philadelphia
IV Atlanta
V Chicago
VI Dallas
VII Kansas City
VIII Denver
IX San Francisco
X Seattle
HEALTH CARE FINANCING ADMINISTRATION
Administrator
OFFICE OF DEPUTY ADMINISTRATOR FOR OPERATIONS
MEDICARE BUREAU
MEDICAID BUREAU
OFFICE OF REIMBURSEMENT PRACTICES
OFFICE OF PROGRAM INTEGRITY
HEALTH STANDARDS AND QUALITY BUREAU
SOCIAL SECURITY ADMINISTRATION
Commissioner
OFFICE OF PROGRAM OPERATIONS
BUREAU OF HEARINGS AND APPEALS
OFFICE OF FAMILY ASSISTANCE
EDUCATION DIVISION
Assistant Secretary for Education
OFFICE OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
INSTITUTE OF MUSEUM SERVICES
OFFICE OF CHILD SUPPORT ENFORCEMENT
Director

FIGURE 8-1 Department of Health, Education, and Welfare organizational chart.

TABLE 8-3 Department of Health, Education, and Welfare Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations
Office of Human Development Services	65.2
Public Health Service	268.0
Social Security Administration	27.7
Education Division	313.0
Health Care Financing Administration[a]	
Office of the Secretary	
Office of the Assistant Secretary for Planning and Evaluation	34.6
Components reorganized in 1977	
Social and Rehabilitation Service	9.4
TOTAL	717.9

[a] Not surveyed.

Table 8-3 lists major HEW components and their fiscal 1977 social knowledge production and application obligations. The Health Care Financing Administration was created in 1977 and thus was not included in the survey; it is responsible for the Medicare and Medicaid programs and related federal medical care quality control programs. The Health Care Financing Administration assumes some of the knowledge production and application activities previously conducted by the Social Security Administration and the Social and Rehabilitation Service. The Social and Rehabilitation Service was abolished in 1977, and its responsibilities were split between the Office of Human Development Services, the Social Security Administration, and the Health Care Financing Administration.

POLICY AREAS

Table 8-4 presents the HEW agencies categorized by policy areas. Over 98 percent of the department's knowledge production and application activities is in the human resources policy area, the largest categories of which are education (44 percent) and health (41 percent). The remaining activities occur primarily in the income security and social service policy areas.

TABLE 8-4 Department of Health, Education, and Welfare Agencies: Social Knowledge Production and Application Activities by Policy Areas (fiscal 1977, $millions)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
Alcohol, Drug Abuse, and Mental Health Administration	79.5 (100.0)				79.5 (100.0)											79.5 (100.0)
Assistant Secretary for Education		17.7 (100.0)			17.7 (100.0)											17.7 (100.0)
Assistant Secretary for Health	1.7 (100.0)				1.7 (100.0)											1.7 (100.0)
Assistant Secretary for Planning and Evaluation	8.4 (24.4)	1.5 (4.2)	0.4 (1.1)	20.6 (59.6)	30.8 (89.2)	3.4 (9.9)					3.4 (9.9)				0.3 (0.9)	34.6 (100.0)
Center for Disease Control	4.9 (100.0)				4.9 (100.0)											4.9 (100.0)
Food and Drug Administration	6.1 (100.0)				6.1 (100.0)											6.1 (100.0)
Health Resources Administration	62.5 (100.0)				62.5 (100.0)											62.5 (100.0)
Health Services Administration	45.4 (100.0)				45.4 (100.0)											45.4 (100.0)

TABLE 8-4 (Continued)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
National Institute of Education		95.0 (100.0)			95.0 (100.0)											95.0 (100.0)
National Institutes of Health	68.1 (100.0)				68.1 (100.0)											68.1 (100.0)
Office of Education		200.3 (100.0)			200.3 (100.0)											200.3 (100.0)
Office of Human Development	0.5 (0.8)			61.7 (94.6)	62.2 (95.4)		0.2 (0.3)				0.2 (0.3)				2.8 (4.3)	65.2 (100.0)
Social and Rehabilitation Service	3.0 (31.9)			6.4 (68.1)	9.4 (100.0)											9.4 (100.0)
Social Security Administration	16.9 (61.2)			8.4 (30.4)	25.3 (91.5)	2.3 (8.5)					2.3 (8.5)					27.7 (100.0)
TOTAL	297.0 (41.4)	314.4 (43.8)	0.4 (0.1)	97.1 (13.5)	708.8 (98.7)	5.8 (0.8)	0.2 (0.05)				6.0 (0.8)				3.1 (0.4)	717.9 (100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

9 Department of Health, Education, and Welfare: Health Agencies

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Health is the second-largest social knowledge production and application policy area of the Department of Health, Education, and Welfare (HEW). More than 37 percent, or $268 million, of HEW's total social knowledge production and application obligations in fiscal 1977 were made by health agencies.

The department's health agencies are located in the Public Health Service, which consists of six operating agencies; the assistant secretary for health exercises direct authority over these six components. The Public Health Service tries to promote and ensure the highest level of health attainable for every individual and family in America. Table 9-1 lists the agencies of the Public Health Service and their estimated fiscal 1977 social knowledge production and application obligations. Four of the agencies obligated over $45 million for social knowledge production and application in that year. The following agencies are components of the Public Health Service:

1. The Alcohol, Drug Abuse, and Mental Health Administration supports knowledge production and application activities to try to understand and treat mental illness and the misuse of drugs and alcohol.
2. The Office of the Assistant Secretary for Health sets policy for the Public Health Service and supports evaluation research on health-related issues.

TABLE 9-1 Public Health Service Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Predominant Goal or Audience[a]
Alcohol, Drug Abuse, and Mental Health Administration	79.5	Research	R&D agency	Provision of knowledge for third parties
National Institutes of Health	68.1	Research	R&D agency	Advancement of knowledge
Health Resources Administration	62.4	Research/general purpose statistics	Mixed	Provision of knowledge for third parties
Health Services Administration	45.4	Demonstrations	Operating agency	Provision of knowledge for third parties
Food and Drug Administration	6.0	Research	Operating agency	Improvement of federal program
Center for Disease Control	4.9	Demonstrations/general purpose statistics	Operating agency	Mixed
Office of the Assistant Secretary for Health	1.7	Research	Policy-making office	Improvement of federal policy
TOTAL	268.0			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

3. The Center for Disease Control is charged with protecting the public health of the nation by providing leadership and direction in the prevention and control of disease and other preventable conditions.
4. The Food and Drug Administration is the regulatory agency concerned with protecting the nation's health against impure and unsafe foods, drugs, cosmetics, and other potential hazards.
5. The Health Resources Administration is responsible for identifying and correcting imbalances, inefficiencies, and deficiencies in the health service delivery system.

6. The Health Services Administration provides direct health services and other health programs to the underserved or disadvantaged.
7. The National Institutes of Health have the mission of improving the health of Americans through the conduct, encouragement, and support of health research and development and related activities.

While the above agencies are considered the "health agencies" of HEW, social knowledge production and application activities in the health policy area are also funded by other HEW agencies: the Office of the Assistant Secretary for Planning and Evaluation; the Office of Human Development Services; the Social and Rehabilitation Service; and the Social Security Administration.[1] These agencies are discussed in Chapter 11.

Table 9-1 also presents the predominant goal or audience for each of the HEW health agencies. The agencies fall into two major groups according to their goal or audience. The first group (the Health Resources Administration, Health Services Administration, and parts of the Alcohol, Drug Abuse, and Mental Health Administration) is primarily concerned with the development of knowledge for third parties. In recent years, HEW has become increasingly concerned with improving health service delivery across the nation. The second major group (the National Institute of Mental Health and the National Institutes of Health) is concerned primarily with the advancement of knowledge. The classification of the National Institute of Mental Health was difficult, because it is also concerned with providing knowledge for third parties—practitioners in the mental health community—as well as supporting basic disciplinary research.

The health policy area presented several problems for the Study Project survey. It was the intent of the survey to exclude biomedical R&D activities; only activities that either support behavioral or social research on health service delivery research were included in the definition of social knowledge production and application. While there was little problem at the extremes (many activities were clearly either biomedical or social), several grey areas did emerge, and they are discussed within the individual agencies.

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[1] The March 1977 reorganization of HEW abolished the Social and Rehabilitation Service and transferred its activities to the new Health Care Financing Administration, the Social Security Administration, and the Office of Human Development Services. The reorganization is discussed under the Social and Rehabilitation Service.

For Further Information

For a general discussion of health research (both biomedical and social) in the Department of Health, Education, and Welfare, see "Themes: Knowledge Development," Part iv, pp. 84-111, in *Forward Plan for Health FY 1978-82*, U.S. Department of Health, Education, and Welfare, U.S. Government Printing Office, Washington, D.C., August 1976.

ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	57,624	16,915	1,182	1,094	76,815		1,110	7,710	8,820	85,635
1976	59,130	16,720	1,325	1,139	78,314		960	5,697	6,657	84,971
1977	54,450	16,337	1,334	1,111	73,232		777	5,523	6,300	79,532

The basic mission of the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) is to assist the nation in understanding the continuing phenomena of mental illness and the misuse of drugs and alcohol. ADAMHA is the fifth-largest agency funder of social knowledge production and application in the federal government. It is composed of three institutes: the National Institute on Alcohol Abuse and Alcoholism; the National Institute on Drug Abuse; and the National Institute of Mental Health. In addition to their research activities, all three institutes support training, prevention, and community service programs that were not included in this survey.

Determining the level of social knowledge production and application in ADAMHA proved difficult. Many activities fell on the borderline of the definition of social knowledge production and application used by the Study Project. A broad interpretation of the definition would have included all the research and related activities of ADAMHA. The distinction between "social" and "biomedical" research was often a difficult one to make. This problem was discussed with staff of all three ADAMHA institutes; their assistance was very helpful. After consultation, the Study Project adopted the following definitions, which are used by ADAMHA:

Biological research includes studies in which the primary emphasis is on a body function or process. One major area included in this category is psychopharmacological studies, at both preclinical and clinical levels. Such studies are generally aimed at understanding the mechanisms of drug action and how drugs affect physiological and behavioral responses. Also included in biological research are studies on drug development and synthesis, toxicology, and screening and analysis techniques.

Behavioral or psychosocial research includes studies of behavior, personality, individual and group interaction, psychological responses to a variety of stimuli, etc. Included in this category are studies of the measurement and diagnostic use of personality and behavioral characteristics of various clinical groups, research on psychotherapy and other psychosocial forms of treatment, and studies of service delivery systems.

Behavioral or psychosocial research was included in the survey, while biological research was not.

The current organization of ADAMHA became effective in 1973. During its lifetime, the National Institute of Mental Health has had many different organizational locations. The creation of ADAMHA was an attempt to provide greater visibility and independence to programs dealing with alcohol, drugs, and mental health. This organization is an attempt to recognize the differences in history, professional commitment, and service systems that are at work in the three areas. The goal of the Office of the Administrator in ADAMHA is to work with each of the three institutes to coordinate, facilitate, and identify major policy issues that affect each of the three fields in similar or related ways.

For Further Information

See *Alcohol, Drug Abuse, and Mental Health Research Grant Awards, Fiscal Year 1976; The* ADAMHA *Publication List*, or write Alcohol, Drug Abuse, and Mental Health Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20852.

NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	11,911				11,911		360	3,670	4,030	15,941
1976	11,808				11,808		160	1,000	1,160	12,968
1977	10,000				10,000		77	700	777	10,777

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) serves as the focal point for federal activities on alcoholism. The mission of NIAAA is to acquire a better understanding of the nature of alcoholism, its causes, and the most effective methods of treatment and prevention. NIAAA is also responsible for accumulating and disseminating knowledge on the risks and dangers associated with irresponsible drinking.

Research

As part of its research programs, NIAAA supports research on the behavioral and social aspects of alcohol use and abuse. Research is funded in the following areas.

CLINICAL/PSYCHOLOGICAL RESEARCH This research focuses on diagnosis and treatment methods aimed at increasing the efficiency and reducing the cost of alcoholism treatment.

BEHAVIORAL RESEARCH This research examines the use of alcohol. It will contribute to a better definition of the alcoholic person and alcohol abuse. Research is also funded to gain an understanding of the behavioral determinants that induce alcohol ingestion and the factors that serve to inhibit or regulate alcohol consumption. Studies include the identification of societal influences on alcohol use, including research on subcultures, ethnic groups, social classes, and families. Research has also been funded on drinking among the elderly, women, and youth.

EPIDEMIOLOGY NIAAA supports a system of surveillance of alcohol consumption that uses the most accurate and complete data sources available and develops new sources where necessary. Data are used in studies of the natural history and trends of alcohol use and abuse. Emphasis is placed on research to elucidate specific risk factors, prevention techniques, and acceptable outcomes of treatment as well as the relationship of alcohol use to illnesses such as heart disease and cancer.

Dissemination

In the past, NIAAA has conducted an active dissemination program. It funds the National Clearinghouse for Alcohol Information, which disseminates the latest research findings in the field. Support of this activity has decreased in recent years.

For Further Information

Write National Institute on Alcohol Abuse and Alcoholism; Alcohol, Drug Abuse, and Mental Health Administration; Department of Health, Education, and Welfare; 5600 Fishers Lane; Rockville, Md. 20857.

NATIONAL INSTITUTE ON DRUG ABUSE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	18.216	16,915	700	779	36,610		750	2.125	2,875	39,485
1976	19,475	16,720	875	801	37,871		800	2,954	3,754	41,625
1977	20,100	16,337	834	750	38.021		700	3.050	3,750	41,771

The National Institute on Drug Abuse (NIDA) conducts a wide range of drug abuse prevention activities. NIDA's research program is devoted to increasing knowledge of narcotics addiction and drug abuse and using that knowledge to formulate improved methods of dealing with drug problems. The agency supports research programs to gain new knowledge, ranging from fundamental research on the basic chemistry of substance abuse to applied research and development activities that have direct impact on treatment services.

Research

Social research in NIDA seeks to determine conditions that govern the initiation of drug abuse. The effects of societal and other environmental conditions on drug abuse are studied. The relationships among different forms of substance abuse (e.g., alcoholism, drug addiction, cigarette smoking, overeating) are examined in an attempt to develop intervention techniques for the prevention and treatment of many forms of substance abuse. Social research is funded in the following programs.

EPIDEMIOLOGY The goal of this research program is to determine the incidence, prevalence, and distribution of drug abuse and its effects on the individual and society. Studies, primarily employing survey methodology, are supported to describe drug use for the population as a whole or for special target populations. Previous surveys have focused on the use of drugs by Vietnam veterans and other young males between 20 and 30 years of age. Another project surveyed nonmedical drug use, with an emphasis on the measurement of consequences. Special studies have been supported on drug use by women, elderly persons, and addicted infants.

ETIOLOGY The goal of etiological studies is to determine the causal factors, including those combinations of biological, psychological, and societal conditions most closely associated with increased risk of drug abuse. Studies have been supported on personality correlates and behavioral factors that may predispose individuals to abuse drugs; longitudinal research studies concerned with medical and psychological factors that may be predictive of subsequent drug abuse; investigations of personality factors determining the choice of drug abuse as an adaptive attempt or as a manifestation of psychopathology; and studies of familial factors and the influence of peers on the abuse of drugs.

HAZARDS Another component of the NIDA research program includes studies to determine the adverse effects of drugs on the physical and mental health of the individual and the consequences of drug abuse on society. This program deals with the biological and psychological complications resulting from drug use, including the effects on behavior and performance. Emphasis has been placed on identifying the relationships between drug dependence and such activities as criminal behavior, addictive lifestyles, and prostitution.

Policy Formulation Demonstrations

NIDA supports a large program of demonstrations—more than $16 million. Demonstration projects are awarded to develop and evaluate promising new approaches relating to substance abuse treatment and rehabilitation services. Since the demonstrations are aimed at determining "what works and what doesn't work," NIDA's demonstration programs have been categorized as policy formulation demonstrations. The demonstration projects have three components: the gathering of data to define appropriate treatment and rehabilitation approaches to client groups with unique cultural, geographical, and/or psychological characteristics; the construction of innovative models to improve the quality of services based on the above data; and the evaluation of the methodologies designed to determine program effectiveness and to make possible the integration of new methods into community programs.

A major concern of the demonstration program is to develop programs, outside the traditional treatment setting, that are responsive to the special social, psychological, and health needs of youth, minorities, women, and multiple drug users. Examples of demonstration projects are:

○ a demonstration project to link the community justice system with treatment resources in the community;

○ the development, testing, and implementation of effective treatment approaches to the abuse of inhalants;

○ vocational rehabilitation programs specifically designed for the drug user and development of outreach techniques for the multiple-drug user, women, and criminal justice clientele; and

○ a series of demonstration projects to identify the nature and extent of drug abuse among different Indian populations and to develop appropriate treatment modalities.

Dissemination

NIDA has supported a national data retrieval and dissemination system to provide state and local officials with essential programmatic, scientific, and technical information on the nature and extent of drug abuse in the United States. A resources and materials file is supported, containing abstracts of documents and audiovisual materials on drug abuse. A clearinghouse program file is also funded, consisting of information on drug abuse programs across the nation.

For Further Information

See *Findings of Drug Abuse Research*, a publication of NIDA, or write National Institute on Drug Abuse; Alcohol, Drug Abuse, and Mental Health Administration; Department of Health, Education and Welfare; 5600 Fishers Lane; Rockville, Md. 20857.

NATIONAL INSTITUTE OF MENTAL HEALTH

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	27,497		482	315	28,294			1,915	1,915	30,209
1976	27,847		450	338	28,635			1,743	1,743	30,378
1977	24,350		500	361	25,211			1,773	1,773	26,984

The National Institute of Mental Health (NIMH) provides leadership, policies, and goals for the federal effort in promoting mental health and the treatment of mental disorders. Since the late 1950s, NIMH has been a major funder of the social sciences and has supported a wide range of research topics. The primary goal of NIMH research is to develop new knowledge and approaches to the causes, diagnoses, treatment, control, and prevention of mental illnesses through basic, clinical, and applied research.

Research

As noted in the discussion of ADAMHA, the distinction between "social" and "nonsocial" often proved difficult. In the case of NIMH, certain areas of research (clinical research and psychopharmacological research) fell outside the Study Project's definition of social research and were excluded from the survey. It should also be noted that only the research activities of NIMH were included in the survey; the programmatic activities of NIMH, such as the Community Mental Health Center program, were excluded.

Programs funding social research in NIMH are discussed below.

BEHAVIORAL SCIENCE PROGRAM Research is funded on the early detection of language and learning disabilities and the prevention of secondary emotional and interpersonal problems; early emotional and personality development and the factors relating to maladaptive behavior; and the mental health effects of changing sexual roles, alternative family styles, and rapid cultural and social change.

EPIDEMIOLOGY This program supports research on the causative factors associated with mental illness. Special consideration is given to depression and suicide in relation to life events or environmental stress. Research also focuses on factors affecting the course and outcome of treatment and adjustment.

APPLIED RESEARCH PROGRAM This program places special emphasis on infant development and prenatal attachment, adolescent behavior, changing family patterns and values, sexuality, and the mental health aspects of aging. The program supports projects designed to increase the understanding of contemporary social problems and problems related to the mental health of juveniles, especially those problems associated with social and environmental conditions.

SERVICE DEVELOPMENT This program supports research on mental health services and delivery. Its research priorities include financing and quality standards, children's mental health services, services of the chronically and aged mentally ill, planning and evaluation technology, and capacity building for integration with other human services.

CRIME AND DELINQUENCY The NIMH Center for Studies of Crime and Delinquency supports research on female crime behavior, individual violent behavior, commitment and treatment of mentally ill offenders, and the effectiveness of various types of community-based strategies for providing treatment and service to delinquents outside the criminal justice system.

METROPOLITAN PROBLEMS The NIMH Center for Studies of Metropolitan Problems supports studies relating to the ways in which human beings function under stress and the kind of formal and informal support systems available to them. Another program focuses on economic and work-related crises. Research is funded on: mental health implications of urban and ethnic conflict; residential and social segregation by age, marital status, and income; the effects of residential and neighborhood density on individuals functioning in families; and evaluation of the community effects of neighborhood mental health facilities.

MINORITY MENTAL HEALTH This program studies effective processes, procedures, and strategies for implementing research findings to improve the services provided to minorities by existing mental health delivery systems.

RAPE This program funds research on the causes and prevention of rape.

Throughout its history, NIMH has also funded studies on methodological developments in social science research.

Dissemination

NIMH has long had an active dissemination program. The National Clearinghouse for Mental Health was established to provide a central information resource on the many complex factors involved in mental illness and mental health. The computer data file includes research from all over the world. The clearinghouse provides bibliographies, consultation, publications, inquiry response, and referrals.

For Further Information

For a detailed discussion of research in the National Institute of Mental Health, see *Research in the Service of Mental Health,* Report of the Research Task Force of the National Institute of Mental Health, U.S. Government Printing Office, Washington, D.C., 1975 (summary report of this volume is also available); *National Institute of Mental Health Research Support Program and Activities* and *Mental Health Program Reports,* which are publications of NIMH, or write National Institute of Mental Health; Alcohol, Drug Abuse, and Mental Health Administration; Department of Health, Education, and Welfare; 5600 Fishers Lane; Rockville, Md. 20857.

ASSISTANT SECRETARY FOR HEALTH

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,043				1,043					1,043
1976	1,660				1,660					1,660
1977	1,660				1,660					1,660

The Office of the Assistant Secretary for Health provides guidance, leadership, and direction to the Public Health Service agencies on all health and health-related activities. The office coordinates all health activities of other departments and agencies and provides advice and assistance as requested. The office also does planning and policy analysis. The assistant secretary serves as the principal health adviser to the secretary of the Department of Health, Education, and Welfare.

In September 1977, the National Center for Health Services Research and the National Center for Health Statistics were transferred from the Health Resources Administration to the Office of the Assistant Secretary for Health. (The two agencies are discussed under the Health Resources Administration.) The objective of this reorganization is to link health services research and health statistics to the policy analysis, planning, and evaluation activities of Office of the Assistant Secretary for Health.

Research

Prior to assuming responsibility for the National Center for Health Services Research, the Office of the Assistant Secretary did not support any research programs. The office did, however, have responsibility for some activities that were labeled "evaluation research" and categorized as research by the Study Project. These activities are somewhat broader than "program evaluation" and are more appropriately labeled "evaluation research." Examples of such activities include:

- a study of ambulatory surgery care with respect to quality, cost savings, and acceptability within the health care system;
- an assessment of the policy analysis and evaluation research capabilities of external resource organizations in the health policy field;
- an analysis of the national five-year plan for family planning services;
- a study of decision making and information use in three Public Health Service regional offices.

For Further Information

Write Office of the Assistant Secretary for Health, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20852.

CENTER FOR DISEASE CONTROL

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	635	1,104		2,336	4,075	32	873	240	1,145	5,220
1976	662	1,180		1,369	3,211	35	933	255	1,223	4,434
1977	694	1,278		1,600	3,572	38	1,010	274	1,322	4,894

The Center for Disease Control is the federal agency charged with protecting the public health of the nation by providing leadership and direction in the prevention and control of disease and other preventable conditions. Of the center's eight operating components, two units support social knowledge production and application activities: the Bureau of Health Education and the National Institute for Occupational Safety and Health. Table 9-2 describes these agencies.

For Further Information

Write Center for Disease Control, Department of Health, Education, and Welfare, 1600 Clifton Road, N.E., Atlanta, Ga. 30333.

TABLE 9-2 Center for Disease Control Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Predominant Organizational Location of Social Knowledge Production and Application Activity[a]	Predominant Goal or Audience[a]
Bureau of Health Education	2.7	Policy formulation demonstrations	Operating agency	Knowledge for third parties
National Institute for Occupational Safety and Health	2.2	Statistics	Operating agency	Improvement of federal programs
TOTAL	4.9			

[a] See Chapter 2 for a more detailed discussion.

BUREAU OF HEALTH EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	123	1,104			1,227	32	873	213	1,118	2,345
1976	130	1,180			1,310	35	933	227	1,195	2,505
1977	141	1,278			1,419	38	1,010	246	1,294	2,713

The mission of the Bureau of Health Education is to provide leadership and direction in a comprehensive national health education program geared to the prevention of disease, disability, premature death, and undesirable and unnecessary health problems. To accomplish this mission, the bureau develops and promulgates health education goals, objectives, and priorities in order to enhance the total effectiveness of the many separate federal programs involved in health education.

Research

A limited amount of research is funded by the bureau. Examples include an examination of smoking intervention techniques, a study of hospital-based health education programs, and a longitudinal study of school health education curriculum projects.

Policy Formulation Demonstrations

The aim of the bureau's demonstrations is to test health education programs geared to meet the specific needs of special target populations—minority groups, inner city and rural poor, industrial workers, etc. It is felt that these groups are not being adequately reached by current health education efforts and new delivery techniques are needed. A current demonstration project is testing methods for effective health education for isolated Indian and rural communities. Another project is introducing health education materials to be used by health workers during their daily activities.

Development of Materials

Most of these materials are geared to use in classrooms. The bureau has supported a broadly based elementary and junior high school health education curriculum that is currently used by 200 school districts in 28 states. The bureau has also funded the development of a school curriculum on smoking and health.

For Further Information

Write Bureau of Health Education, Center for Disease Control, Department of Health, Education, and Welfare, 1600 Clifton Road, N.E., Atlanta, Ga. 30333.

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	512			2,336	2,848			27	27	2,875
1976	532			1,369	1,901			28	28	1,929
1977	553			1,600	2,153			28	28	2,181

The mission of the National Institute for Occupational Safety and Health (NIOSH) is to ensure safe and healthful working conditions for all working people. The agency plans, directs, and coordinates the national program effort to develop and establish recommended occupational safety and health standards. The agency also conducts research, training, and related activities to ensure safe and healthy working conditions.

Research

NIOSH supports research projects on innovative approaches to understanding the underlying characteristics of occupational safety and health problems and effective solutions in dealing with them. Social research is conducted on psychological and motivational factors in occupational situations, and the impact of these factors on mental health and job performance is studied. Included in this category are studies of the effects of impaired physical, mental, and emotional states on safety and effective work performance. Examples of such studies are listed below.

WORK CONDITIONS, JOB SATISFACTION, AND CORONARY HEART DISEASE RISK This study tested the proposition that intrinsic job satisfaction plays an important role in the causation of coronary heart risk.

JOB DEMANDS AND WORKER HEALTH The aim of this research is to identify classes of jobs in terms of stress and discover the extent to which the relationship between job demands and strain hold within occupations.

General Purpose Statistics

NIOSH is responsible for maintaining an occupational health surveillance system. Soon after its creation, NIOSH recognized that reliable statistics describing health hazards in the occupational environment were virtually nonexistent. Policy decisions, research priorities, and response to public inquiries were often based on conjecture rather than fact. NIOSH began to collect health hazard information. It currently maintains a surveillance system on occupational hazards, injuries, and illnesses resulting from the work environment. Included in the surveillance system is a national occupational hazard safety survey, which is intended to describe the health and safety conditions in the American work environment.

For Further Information

Write National Institute for Occupational Safety and Health, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

FOOD AND DRUG ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,752	159	1,230		4,141		432	1,144	1,576	5,717
1976	2,616	162	1,185		3,963		605	1,177	1,782	5,745
1977	3,036	225	1,160		4,421		416	1,217	1,633	6,054

The Food and Drug Administration (FDA) is a scientific regulatory agency whose mission is protecting the nation's health against impure and unsafe foods, drugs, cosmetics, and other potential hazards. While most of the agency's R&D activities are in the areas of biological and life sciences, some social knowledge production and application activities are supported.

Research

The majority of FDA's social research is supported by the Bureau of Foods, which is responsible for conducting research and establishing standards on the composition, quality, nutrition, and safety of food, food additives, colors, and cosmetics. As part of that responsibility, the bureau supports social research on the nutritional behavior of the American public. In order to establish baseline data on consumer exposure to, experience with, and expectations concerning food, the FDA supported a three-year study of attitudes and knowledge about nutrition among food shoppers. Other social surveys have examined the food intake patterns of the American public and their attitudes toward various health practices. The latter survey investigated people's beliefs concerning fallacious or questionable health practices (such as "aids" to stop smoking, taking vitamins, etc.) and their susceptibility to these practices.

Program Evaluation

FDA's evaluation efforts are currently focused on (1) the identification of the size and extent of problems and the development of ways to measure the impact of agency actions on these problems; (2) an assessment of alternative practices by the agency (e.g., the use of different compliance methods); and (3) the monitoring of program performance and accomplishments.

Other Activities

The FDA also supports the development of materials. These materials are used in training courses. The agency's dissemination activities largely consist of the publication and distribution of materials concerning consumer protection and public health.

For Further Information

Write Food and Drug Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

HEALTH RESOURCES ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	30,103	7,132	3,590	21,079	61,904	8,494	2,886	2,521	13,901	75,805
1976	23,285	4,090	1,612	25,887	54,874	7,900	1,276	3,436	12,612	67,486
1977	20,933	3,656	1,112	24,223	49,924	7,900	1,259	3,414	12,573	62,497

The Health Resources Administration (HRA) has the responsibility for identifying and correcting current and anticipated imbalances, inefficiencies, and deficiencies in the distribution, supply, utilization, and costs of health care resources and services. HRA provides leadership related to the distribution of health resources in the United States. The agency carries out its mission by measuring and analyzing current status and trends; defining, testing, and evaluating alternative means of meeting problems; and promoting innovative strategies and targeted resource development designed to improve areas of imbalance and inefficiency.

Table 9-3 lists agencies included within the Health Resources Administration and their total social knowledge production and application obligations for fiscal 1977. As can be seen from the table, HRA attempts to fulfill its missions by the collection of statistics, health services research, and programmatic activity. The table also points out the "third party" nature of the agency, as much of its knowledge production and application is directed at the private health sector.

For Further Information

Write Health Resources Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

TABLE 9-3 Health Resources Administration Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
National Center for Health Statistics[b]	24.0	General purpose statistics	Statistical agency	Collection of statistics
National Center for Health Services Research[b]	22.2	Research	R&D Agency	Knowledge for third parties
Bureau of Health Manpower	11.2	Policy implementation demonstrations	Operating agency	Knowledge for third parties
Bureau of Health Planning and Resources Development	4.0	Dissemination	Operating agency	Knowledge for third parties
Office of Planning, Evaluation, and Legislation	1.0	Evaluation	Policy-making office	Improvement of federal policy
TOTAL	62.4			

[a] See Chapter 2 for a more detailed discussion.

[b] Transferred to the Office of the Assistant Secretary for Health in September 1977.

BUREAU OF HEALTH MANPOWER

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2.041	209			2.250	7.932	1.031	146	9.109	11.359
1976	2.000	200			2.200	7.900	1.000	150	9.050	11.250
1977	2.000	200			2.200	7.900	1.000	150	9.050	11.250

The Bureau of Health Manpower is responsible for planning, developing, and administering programs in support of the development and use of the nation's health manpower. Its programs are designed to strengthen state and local health manpower capacity as well as to develop new approaches to health manpower development and use. The bureau's goal is to ensure that an adequate supply, mixture, and distribution of health workers is available to operate the nation's health care system.

Research

The bureau conducts research on the nation's health manpower situation. Research is geared to ascertaining the geographic and specialty distribution of health manpower, improving the manpower planning process, improving training procedures, and studying ways to increase health manpower opportunities. Research efforts have resulted in the development of new roles for nurses and dentists as well as expanded health services and improved delivery of health care services.

Some of the manpower-related issues that the bureau's research activities have focused on are: the effectiveness of three-year medical schools; the status of women in the health sector; admission patterns in ten medical schools; the feasibility and potential impact of employing physician assistants; the economics of dental practice; the identification of barriers limiting entry of minority groups into health professions; and the economic and noneconomic incentives needed to get nurses to work in underserved geographic areas.

Policy Implementation Demonstrations

The bureau supports a series of demonstration projects with the aim that they will serve as a model to be implemented by other appropriate health service organizations. One demonstration deals with the establishment of a training program for registered nurses to become geriatric nurse practitioners. The demonstration project was conceived as a way to improve health care delivery for elderly persons in medically disadvantaged areas. Another demonstration project involved a program of training nurse midwives and placing them in maternal infant care teams in six states. The aim of this demonstration was to improve the geographic distribution of maternal infant services in medically deprived areas. Other demonstrations have promoted various ways in which nurses could be used to provide care in shortage areas and in ambulatory and community settings.

Development of Materials

In addition to its other activities, the bureau supports the development of self-instructional and other materials to be used in the training of health workers.

For Further Information

Write Bureau of Health Manpower, Health Resources Administration, Department of Health, Education, and Welfare, 3700 East-West Highway, Hyattsville, Md. 20782.

NATIONAL CENTER FOR HEALTH SERVICES RESEARCH

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	23,605	6,923	820	301	31,649	562	193	265	1,020	32,669
1976	19,802	3,890	677	251	24,620		150	200	350	24,970
1977	17,594	3,456	602	223	21,875		133	178	311	22,186

The National Center for Health Services Research plans, develops, and administers a broad program of health services research, demonstrations, and evaluation on virtually all aspects of health services delivery in this country. The center makes awards to health service providers and researchers, conducts and coordinates health services research within the Public Health Service, and disseminates research findings and provides technical assistance to other federal programs and health service providers.

The center was established in 1974 in order to make a substantial improvement in the efficiency and effectiveness of health services by expanding the knowledge of provider and consumer behavior and by testing and evaluating new approaches to producing, organizing, and delivering health services. The center is now the principal source of support in the nation for general research on the delivery of health services.

In September 1977, the center was transferred from the Health Resources Administration to the Office of the Assistant Secretary for Health. It was felt that the center's crosscutting responsibilities as the primary source of technical and professional assistance in health policy research and in the development of a national health strategy could best be realized by locating it within the Office of the Assistant Secretary for Health's policy analysis staff.

Research

Since the center is the largest single source of funds for health services research, the development of the center's research agenda is very important. Recognizing this, the center establishes its research priorities through intensive interaction with those who need health services information—decision makers in the executive and legislative branches of the federal, state, and local governments and researchers and providers. As an outgrowth of the agenda-setting process, the center funds research on the following selected areas.

INFLATION AND PRODUCTIVITY This research has examined the factors responsible for increasing hospital costs; the effects of alternative delivery mechanisms on health expenditures; and the critical determinants of wages and prices in the health sector.

HEALTH INSURANCE This research has examined the price elasticity of the demand for health services; the distributional aspects of national health insurance benefits and finance; the impact of insurance on physician price and output decisions; and the potential consequences of providing catastrophic insurance benefits on a national basis.

HEALTH MANPOWER This research has examined questions related to the supply of primary and specialty services and their geographic distribution; increased substitution of nurses and medical corpsmen for physicians; the nonphysician labor market; and employment practices and the growth of collective bargaining in the health sector.

QUALITY OF CARE This research emphasizes the improvement of techniques for assessing the quality of health care; the formulation of measures of health status; the evaluation of technological innovations in the delivery system that might improve care; and the identification of mechanisms to deal with malpractice insurance problems.

PLANNING AND REGULATION This research emphasizes the development of better quantitative techniques for estimating resource demands; analysis of the social and political problems of planning; the identification of the information needed in the planning process; and development of mechanisms needed for assessing the consequences of various types of regulation.

HEALTH CARE FOR THE DISADVANTAGED This research has examined problems of access to medical care; evaluation of differences in use by subgroups; the problem of employment of the disadvantaged in the health industry; and institutional and programmatic influences on delivery and use of health services.

LONG-TERM CARE This research consists of empirical studies as well as methodological and theoretical research relevant to such policy questions as the demand for long-term care, the supply and access effects of existing insurance and regulatory policies, and the costs and distribution implications of alternative assistance strategies.

In addition to funding individual projects in the seven priority areas, the center also supports six regional health service research centers. These centers are expected to carry out the following activities: design and implementation of research, evaluation, and demonstration projects; education of health service researchers drawn from relevant professions and disciplines; and consultation and technical assistance to interested individuals and organizations in a specific region or local area. A key function of these regional centers is the development of a research agenda that is responsive to regional and local needs. Two of the centers will be designated as National Special Emphasis Centers:

- ○ *Health Care Technology Center,* to focus on assessing the potential impacts of existing or proposed technologies on the health service delivery system.
- ○ *Health Care Management Center,* to focus on improving the management, organization, and productivity of the health sector. The center will provide training and retraining for health administrators and will attempt to develop leaders, planners, and policy analysts for the health sector.

Policy Formulation Demonstrations

Another major activity of the center is the support of demonstrations to learn about alternative methods of health care delivery. It has supported a "community-based primary health care unit" to test an alternative way of organizing and delivering health services by creating a delivery team geared to service a definite population. Another demonstration project created "chronic disease service modules" to test the feasibility of a module approach for providing care for chronically ill patients. One project tested and evaluated alternative mechanisms for reimbursing physicians for the care of hospitalized patients. All demonstrations contribute to the center's mission to learn more about improved methods of health care delivery.

For Further Information

The following publication series provide more information on the activities of the center: The *Research Management Series* describes programmatic rather than technical aspects of the center's research effort. Specific reports in the series are *The Program in Health*

Services Research, Research on the Priority Issues of the National Center for Health Services Research, Grants and Contracts Active, and *Recent Studies in Health Services Research, CY 1976.* The *Policy Research Series* describes findings from the research program of major significance for policy issues of the moment. The *Research Digest Series* provides overviews of significant research supported by the center. The *Research Proceedings Series* extends the availability of new research through conferences, symposia, and seminars sponsored or supported by the center. The *Research Summary Series* provides rapid access to significant results of center-supported research projects. The *Research Report Series* produces significant research reports in their entirety upon the completion of a project.

To obtain these publications or information concerning the various publication series, write National Center for Health Services Research, Department of Health, Education, and Welfare, Room 8-50, 3700 East West Highway, Hyattsville, Md. 20782.

NATIONAL CENTER FOR HEALTH STATISTICS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			1,521	20.339	21,860					21,860
1976			265	25.636	25,901					25,901
1977				24,000	24,000					24,000

The National Center for Health Statistics is responsible for providing timely and accurate statistical information on the status of the nation's health and providing its official vital statistics. The national center is one of the five major general purpose statistical agencies in the federal government.

The objectives of the center are many. It provides a national descriptive baseline of health statistics that serves to identify and measure problems and trends in health status. The data are also used for identifying efficiencies and inefficiencies in the distribution, supply, use, and costs of health care resources and services. The center's health and related social data are also used by a variety of governmental and nongovernmental users. A major activity of the center is to develop and implement a cooperative system of data collection with states and local areas to produce comparable and reliable health data at the national, state, and local levels without duplication of effort. The center also provides technical assistance to other federal agencies working in the health field.

Along with the National Center for Health Services Research, the National Center for Health Statistics was transferred in September

1977 from the Health Resources Administration to the Office of the Assistant Secretary for Health. It was felt that the transfer would result in more effective use of the center as the agent responsible for the collection and analysis of general purpose health statistics and for coordinating those statistics that involve cooperation with state and local agencies. In addition, it was felt that health data collection efforts would become more systematic and uniform, enhancing the ability of the assistant secretary for health to obtain data needed for policy making and to resolve data policy issues.

General Purpose Statistics

The center provides two main clusters of statistics. They are listed below.

VITAL STATISTICS Data are collected on births, deaths, marriages, and divorces. Annual and decennial life tables and related actuarial tables are prepared.

HEALTH STATISTICS Data are collected on:

- illnesses, injuries, impairments, and disabilities;
- costs and uses of health services (including hospital and nursing homes);
- nutritional status, prevalence of chronic disease, physiological measurements, and patterns of physical and intellectual growth;
- characteristics, supply, and geographic distribution of health manpower and facilities.

Vital statistics are reported on both a monthly and an annual basis. Statistical data are published by the center in its *Vital and Health Statistics Publication Series*. The principal periodic reports of the center are presented in Table 9-4.

For Further Information

For a discussion of health statistics in general, including the statistics collected by the National Center for Health Statistics, see *Health Statistics Plan, Fiscal Years 1978–1982*, Department of Health, Education, and Welfare, Washington, D.C., February 1977 (document can be obtained from the Office of the Assistant Secretary for Health). For more information on the statistical activities of the center, see *Current Listing and Topical Index to the Vital and Health Statistics Series*, a publication of the National Center for Health Statistics, or write National Center for Health Statistics, Department of Health, Education, and Welfare, Room 2-19, 3700 East-West Highway, Hyattsville, Md. 20782.

TABLE 9-4 Principal Periodic Reports of the National Center for Health Statistics

General and Health Statistics Publication Series	
General Reports	
Series 1	Programs and Collection Procedures
Series 2	Data Evaluation and Methods Research
Series 3	Analytical Studies
Series 4	Documents and Committee Reports
Health Statistics	
Series 10	Data from Health Interview Survey
Series 11	Data from Health Examination Survey
Series 12	Data from Health Record Survey
Series 13	Data from Hospital Discharge Survey
Series 14	Data on Health Resources: Manpower and Facilities
Vital Statistics	
Series 20	Data on Mortality
Series 21	Data on Natality, Marriage, and Divorce
Series 22	Data from the National Natality and Mortality Surveys

HEALTH RESOURCES ADMINISTRATION: OTHER AGENCIES

Bureau of Health Planning and Resources Development

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,171		262		2,433		1,662	2,110	3,772	6,205
1976	849				849		126	3,086	3,212	4,061
1977	849				849		126	3,086	3,212	4,061

The Bureau of Health Planning and Resources Development provides leadership and administration to a program of federal, state, and areawide health planning and health delivery system development. The goal of the bureau is to assist state and local agencies in developing and implementing health planning in accordance with the National Health Planning and Resources Development Act of 1974.

Research

During fiscal 1975, the bureau supported research projects on ways to improve planning methodology for health services. A sounder knowledge base concerning health planning was deemed essential to carry out the bureau's technical assistance activities. Research in the bureau is now a minor activity, as more emphasis is placed on providing planning assistance.

Development of Materials

During fiscal 1975, the bureau also supported the development of materials for state and local organizations on planning methodology and the development of agency plans.

Dissemination

A major activity of the bureau is dissemination. It provides technical assistance to state and local governments for planning. Technical assistance is provided on how best to plan for health services at the community level; how medical care affects people's health status; how data can be used to plan health services effectively; and how to measure the relative effectiveness of different health programs. A large portion of the technical assistance information is knowledge-based.

For Further Information

Write Bureau of Health Planning and Resources Development, Health Resources Administration, Department of Health, Education, and Welfare, 3700 East-West Highway, Hyattsville, Md. 20782.

Office of Planning, Evaluation, and Legislation

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,286		987	439	3,712					3,712
1976	634		670		1,304					1,304
1977	490		510		1,000					1,000

The Office of Pla[illegible]g, Evaluation, and Legislation serves as the principal adviser to [illegible]ministrator of the Health Resources Administration on long- and short-range planning to meet the health resources needs of the nation. The office develops plans, establishes evaluation requirements, and designs legislative proposals to support departmental goals. In support of its missions, the office funds a variety of research and program evaluation activities concerning Health Resources Administration programs. Emphasis is placed on providing objective measurements on program performance and the total effectiveness of agency efforts.

For Further Information

Write Office of Planning, Evaluation, and Legislation, Health Resources Administration, Department of Health, Education, and Welfare, 3700 East-West Highway, Hyattsville, Md. 20782.

HEALTH SERVICES ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	14,683		4,213	1,843	20,739	16,757	346	2,655	19,758	40,497
1976	15,273		3,397	2,264	20,934	27,621	472	3,183	31,276	52,210
1977	9,440	500	3,862	2,315	16,117	25,769	350	3,178	29,297	45,414

The primary objectives of the Health Services Administration (HSA) are to provide health services for the underserved or disadvantaged; to build health services delivery capacity in medically underserved areas; to ensure the quality of health care; to foster effective and efficient health services delivery; and to provide services to populations defined by statute. HSA is also expected to provide national leadership in the area of health services delivery.

Table 9-5 presents the agencies within HSA that fund social knowledge production and application activities. All the agencies are operating agencies, as all administer programmatic activities. The Bureau of Community Health Services is the largest unit within the agency; it funds social knowledge production and application for state and local governments that administer local health services. Over 90 percent of the agency's social knowledge production and application activities is geared to these third parties.

For Further Information

Write Health Services Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

TABLE 9-5 Health Services Administration Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Bureau of Community Health Services	40.2	Policy implementation demonstrations	Operating agency	Knowledge for third parties
Office of Planning, Evaluation, and Legislation	1.6	Program evaluation	Operating agency	Improvement of federal policy
Bureau of Quality Assurance	1.5	Program evaluation	Operating agency	Improvement of federal program
Bureau of Medical Services	1.1	Research	Operating agency	Knowledge for third parties
Indian Health Service	1.0	Policy implementation demonstrations	Operating agency	Improvement of federal program
TOTAL	45.4			

[a] See Chapter 2 for a more detailed discussion.

BUREAU OF COMMUNITY HEALTH SERVICES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	7,893		975	1.512	10.380	15.869	227	2.602	18.698	29,078
1976	7.932		1.262	1,879	11.073	26.706	350	3.128	30.184	41.257
1977	8.353		1.262	1.929	11.544	25.106	350	3.153	28.609	40.153

The Bureau of Community Health Services supported nearly 90 percent of the social knowledge production and application activities of the Health Services Administration in fiscal 1977. The bureau is responsible for assisting communities in finding the best way of meeting their health needs and resolving problems of access to health care. The bureau also serves as a national focus for improving the organization and delivery of health care. Its mission is accomplished by (1) initiating activities to provide alternatives in health care service delivery and (2) administering programs that support health services to specific population groups that lack adequate health care. The following programs are administered by the bureau: Neighborhood Health Centers (which provide maternal and child health programs and comprehensive family planning), Migrant Health Clinics, and the National Health Service Corps. The bureau also administers loans to health maintenance organizations.

In fiscal 1977 the bureau's social knowledge production and application activities were funded in five programmatic areas. Table 9-6 lists those programs and their total social knowledge production and application obligations for fiscal 1977.

Rural Health

The bureau encourages integrated health care delivery in rural areas through the support of policy implementation demonstrations, which show new approaches and concepts directed at combining, coordinating, and strengthening health service delivery in rural areas. The bureau spent over $23 million on two demonstration programs in fiscal 1977. Both programs were geared to demonstrating a solution to inadequate and inaccessible health services in rural areas.

The largest demonstration program ($16.5 million in fiscal 1977) is the Rural Health Initiative. This demonstration seeks to combine exist-

TABLE 9-6 Bureau of Community Health Services Programs that Obligated Social Knowledge Production and Application Funds (fiscal 1977, $millions)

Program	Total Social Knowledge Production and Application Obligations
Rural Health	26.5
Maternal and Child Health	7.8
Family Planning	3.1
International Health Research	1.7
Agencywide Statistics	1.0
TOTAL	40.1

ing elements of rural health care into integrated units that demonstrate how local comprehensive rural health care systems can be formed that not only are self-sufficient but also provide career opportunities to attract and retain physicians and other health professionals in rural communities.

The second demonstration is the Health Underserved Rural Areas project, which obligated $8.5 million in fiscal 1977. This demonstration is geared toward improving primary health care in rural areas. Its aim is to show how primary care services can be integrated into a complete system of health care delivery that is financially viable, professionally attractive, and self-sustaining. A secondary goal is to integrate Medicaid patients into a single care system.

Maternal and Child Health

The bureau administers grants to states for the provision of services to high risk mothers and children The program enables each state to extend and improve services for promoting the health of mothers and children, reducing infant mortality, and preventing morbidity. The bureau funds mental retardation clinics, maternal and child health services, crippled children clinics, intensive infant care projects, etc.

Approximately 10 percent of the program's total budget is devoted to research and training. In fiscal 1977, the program obligated $5.3 million for research. The basic purpose of the research program is to contribute to the objective of improving the health of mothers and children. It is an applied research program that attempts to bridge the gap between research and the variety of health service projects administered by the bureau. The program funds research on the following topics: the nonuse of existing health services by mothers and children; habilitation and rehabilitation needs of handicapped children; specific disease and health problems of mothers and children (e.g., perinatal mortality, nutrition and pregnancy, child abuse); health needs of adolescent pregnant girls; and mental retardation and learning disorders.

In addition to its research activities, the program also obligates approximately $2.5 million for a variety of dissemination activities concerning maternal and child health.

Family Planning

The bureau administers grants for family planning services. In support of that program, the bureau funds a variety of knowledge production and application activities. The development of materials is supported to assist local clinics. Technical assistance is provided to local family planning clinics on the most effective ways of reaching the target population. The program also funds program evaluation concerning the effectiveness of the family planning clinics. A small amount of research is funded.

International Activities

The bureau administers the international health research program of HEW. Individual projects are selected by the Public Health Service agencies on the basis of scientific merit and relevance to domestic program priorities. Work is carried out by foreign investigators in cooperation with research staff from the United States.

Agencywide Statistics

The bureau also collects and analyzes statistics concerning its target population. Statistics are published concerning the health of mothers and children, number of children served in mental retardation clinics, family planning services, etc.

For Further Information

Write Bureau of Community Health Services, Health Services Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

BUREAU OF MEDICAL SERVICES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	6,446		438	331	7,215	250	119	53	422	7,637
1976	6,991		450	385	7,826	265	122	55	442	8,268
1977	730			386	1,116			25	25	1,141

The Bureau of Medical Services administers the largest direct medical care program in the Public Health Service. Direct health care is provided to merchant seamen and other designated federal beneficiaries.

Occupational health services are provided to federal employees. The bureau administers public health service hospitals, public health service outpatient clinics, and federal prison hospitals.

Prior to fiscal 1977, the bureau was the second-largest funder of social knowledge production and application within the Health Services Administration. In fiscal 1977, the Ford administration announced plans to close public health service hospitals and hence did not request any research funds for the bureau. The Study Project's figures are based on the President's fiscal 1977 budget request. Congress, however, did not agree to close the hospitals, and final appropriations for the bureau reflect higher research obligations that are not reported here. The bureau's research activities are administered in two programs: patient care and special health services, and emergency medical services. Both received cuts in the President's fiscal 1977 budget.

Research

Research is funded by the bureau to study the improvement of the quality, efficiency, and economy of the delivery of federal health services. Bureau health service research is carried out by interdisciplinary teams of physicians, dentists, nurses, pharmacists, industrial engineers, social scientists, and computer programmers. Their efforts are directed to applying modern technology to the problems of planning, organizing, and managing the delivery of federal health services. In addition to health services research, the bureau conducts clinical research.

The bureau is responsible for providing national leadership for the development, improvement, expansion, and integration of comprehensive area emergency medical service systems. Prior to fiscal 1977, this program had a significant research component. The bureau funded studies that examined the following aspects of emergency medical care:

○ the development of measures of effective system performance;

○ the testing and evaluation of emergency medical service data systems and the analysis of data concerning time between injury occurrence and medical treatment and the disability and mortality consequences of system failure; and

○ the study of the manpower and technical combination that could be used as alternative means of delivering health care to rural isolated communities.

For Further Information

Write Bureau of Medical Services, Health Services Administration, Department of Health, Education, and Welfare, 6525 Belcrest Road, Hyattsville, Md. 20782.

HEALTH SERVICES ADMINISTRATION: OTHER AGENCIES

Health Standards and Quality Bureau

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1977		500	1,000		1,500					1,500

The Health Standards and Quality Bureau, formerly the Bureau of Quality Assurance, provides national leadership and direction to efforts to ensure that health care services provided under the Medicare, Medicaid, and other federal programs are medically necessary and furnished in the most economic manner consistent with recognized professional standards of care. The bureau is currently administering professional standards review organizations (PSROS). In fiscal 1977, a program evaluation of the PSRO program was funded. Two small policy formulation demonstrations are also being funded. The bureau was transferred to the newly created Health Care Financing Administration in March 1977.

For Further Information

Write Health Standards and Quality Bureau, Health Care Financing Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

Indian Health Service

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	344				344	638			638	982
1976	350				350	650			650	1,000
1977	357				357	663			663	1,020

The Indian Health Service operates a program of comprehensive health services for eligible American Indians and Alaskan natives. In addition to providing direct service, the Indian Health Service develops innovative health delivery systems for Indian groups. Research is supported in that area.

The service is now supporting a policy implementation demonstration. A Health Program Systems Center is being funded to develop, test, define, and demonstrate optimal ways of planning, budgeting, implementing, and evaluating the service's comprehensive health program. As the effectiveness of these planning and analysis procedures and methodologies is demonstrated, it is hoped that they will be used throughout the Indian Health Service.

For Further Information

Write Indian Health Service, Health Services Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

Office of Planning, Evaluation and Legislation

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			2,800		2,800					2,800
1976			1,685		1,685					1,685
1977			1,600		1,600					1,600

The Office of Planning, Evaluation and Legislation reports directly to the administrator of HSA. It is responsible for both long-range program planning and operational planning as well as evaluation and legislative development. The following evaluations have been supported by the office:

- an analysis of HSA program potential under alternative health care financing strategies;
- an evaluation of the barriers to implementation of the program and projects in maternal and child health; and
- a cost and utilization evaluation of the migrant hospital program.

For Further Information

Write Office of Planning, Evaluation and Legislation, Health Services Administration, Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Md. 20857.

NATIONAL INSTITUTES OF HEALTH

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	36,782	8,086	467		45,335	596	1,642	18,993	21,231	66,566
1976	34,557	6,750	526		41,833	1,182	1,846	19,218	22,246	64,079
1977	37,065	6,648	490		44,203	1,182	1,795	20,912	23,889	68,092

The National Institutes of Health (NIH) is the sixth-largest funder of research and development in the federal government. (The five largest funders of research and development are: the Department of the Air Force, the Department of Energy, the National Aeronautics and Space Administration, the Department of the Army, and the Department of the Navy.) In fiscal 1977, NIH obligated $1.95 billion for research and development. Of that total, $68 million was found to be social.

The mission of NIH is to improve the health of the American people. To carry out this mission, NIH conducts, encourages, and supports health research and development and related activities. Table 9-7 lists the institutes that support social knowledge production and application activities.

TABLE 9-7 National Institutes of Health (fiscal 1977, $millions)

Agency	Social Knowledge Production and Application Obligations
National Library of Medicine	20.9
National Cancer Institute	18.7
National Institute of Child Health and Human Development	11.1
National Heart, Lung, and Blood Institute	7.5
National Institute of Neurological and Communicable Diseases and Stroke	3.8
National Institute of Environmental Health Sciences	1.5
National Institute of Allergy and Infectious Diseases	0.9
Fogarty International Center for Advanced Study in the Health Sciences	0.9
Office of the Director	0.8
National Eye Institute	0.6
National Institute of Dental Research	0.4
National Institute of Arthritis, Metabolism, and Digestive Diseases	0.3
National Institute of General Medical Sciences	0.3
National Institute on Aging	0.1
TOTAL	68.1

For Further Information

See *A Guide to NIH Programs and Awards; National Institutes of Health, Research Grants;* and *National Institutes of Health, Research Development Contracts,* which are publications of NIH, or write National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

NATIONAL CANCER INSTITUTE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	12,289	6,468	204		18,961	596		81	677	19,638
1976	12,289	4,913	227		17,429	1,182		89	1,271	18,700
1977	12,289	4,913	208		17,410	1,182		82	1,264	18,674

The National Cancer Institute (NCI) is the federal government's principal agency for cancer research and control. The National Cancer Act of 1971 directed NCI to "plan and develop an expanded, intensified, and coordinated research program encompassing the programs of the National Cancer Institute, related programs of other research institutions and other federal and nonfederal programs." A major part of that program is the cancer control program, which demonstrates and communicates to both the medical community and the general public the latest advances in cancer prevention and management.

The Cancer Control and Rehabilitation Program was the only program in NCI found to support social knowledge production and application activities. The goal of the cancer control program is to "identify, field test, evaluate, demonstrate and promote the widespread application of available and new, proven and practical knowledge about the technologies for reducing the incidence, morbidity and mortality from cancer." The total cancer control budget was $55 million in fiscal 1977. Of that total, $18 million was obligated for social knowledge production and application activities.

The cancer control program presented a major dilemma for the Study Project: how much of the cancer control program should be included in the survey? On one hand, the cancer control program could be classified as a health service delivery demonstration and the entire program included in the survey. On the other hand, the survey had decided to exclude "biomedical R&D." The definition used by the Study Project was to exclude "research on diseases, syndromes, injuries or conditions, whether mental or physical, affecting human beings—their cause, occurrence, prevention, detection, treatment, cure or rehabilitation." The dilemma was made more difficult by the fact that conflicting opinions exist on the goals of the cancer control program. Is the primary objective of the breast cancer control demonstrations to determine and compare the relative efficiencies of physical examination, mammography, and thermography in the early detection of breast cancer (with strong emphasis on pretreatment evaluation of persons diagnosed as having breast cancer)? Or is the emphasis on evaluating the cost effectiveness and management issues concerning mass screening programs?

The dilemma was never fully resolved. It was decided, however, that biomedical demonstrations would be excluded from the survey. Only demonstration projects or research projects that had a clear behavioral component would be included. Demonstration projects that were primarily geared to testing innovative service delivery programs (without a heavy biomedical component) were included in the survey. The decision was made in order to achieve consistency with the remainder of the Study Project survey. By and large, biomedical R&D was excluded throughout the entire survey. Instances were found, such as the cancer control program, where biomedical demonstrations could have been categorized as service delivery demonstrations and included in the survey. Biomedical demonstrations represent a grey area that the Study Project was never able to clarify fully.

The remainder of this section will discuss those parts of the cancer control program that were included in the Study Project survey. It should be noted that dollar figures were not available for fiscal 1977. It was estimated by the cancer control program that the level of obligations would remain steady between fiscal 1976 and fiscal 1977. Thus, the dollar figures are constant for those years.

Research

The cancer control and rehabilitation program supports several different types of research. A small behavioral research program is funded. This program has held conferences on such topics as cancer control and the behavioral sciences. The program funded a history of the cancer control programs from 1946 to 1971. Research is also supported that looks at health personnel issues. One project identified the number and types of personnel needed to conduct cancer control programs in the future. A survey of cancer control laws and review of cancer education programs in medical and dental schools has been supported. Research is funded on community-based cancer control planning techniques. Multidisciplinary groups receive planning research grants to develop community-based programs.

Another major area of research is cancer rehabilitation. These projects attempt to develop the means, techniques, and methods of rehabilitation and to assess ways in which they can be applied. The following research programs are supported by the cancer control rehabilitation program.

PSYCHOLOGICAL ASPECTS OF BREAST CANCER The goal of this research program is to improve the psychological well-being of breast cancer patients and their families and to enhance their readaptation to a normal and satisfactory way of life.

PSYCHOSOCIAL REHABILITATION OF CANCER PATIENTS Research focuses on ways to improve the ability of the patient and his or her family to deal with inherent psychosocial problems involved in cancer. One aspect of this research focuses on developing means for preventing or treating emotional complications.

SUICIDE AND OTHER COPING BEHAVIOR OF CANCER PATIENTS Research is funded to identify coping strategies, types of vulnerability, predominant concerns, and effectiveness of resolution. An index of vulnerability was developed on the basis of common traits found among patients subject to suicidal thoughts.

PSYCHOLOGICAL ADAPTATIONS TO CHILDHOOD LEUKEMIA Increased survival rates for children with leukemia have resulted in growing concerns about the effects of diagnosis and treatment upon the psychological well-being of the child and his or her family. Research has focused on the development of reliable and valid methods for the early identification of psychologically "high-risk" children and parents.

Policy Formulation Demonstrations

As noted above, a decision was made to include only demonstrations that had a clear behavioral component or that were primarily aimed at demonstrating a new service delivery mechanism. Thus, the following demonstration programs were included in the survey.

DEMONSTRATION OF A CANCER REHABILITATION FACILITY This series of demonstrations developed model patient rehabilitation service systems that provided medical, psychological, and social support covering the entire course of a cancer patient's illness.

INTEGRATED CANCER REHABILITATION SERVICE This set of projects focused on rehabilitation and continuing care approaches for a multiple institutional approach. The projects provide the medical, psychological, and social support required to return cancer patients to a normal and productive life.

DEVELOPMENT AND IMPLEMENTATION OF AT-HOME REHABILITATION PROGRAMS This demonstration program supported innovative service delivery projects that provide cancer patients with at-home care. A multidisciplinary health team was supported. This project identified the physical, psychological, occupational, nutritional, and continuing needs of discharged patients.

EARLY IDENTIFICATION OF PSYCHOSOCIAL PROBLEMS The objective of this program is to test and demonstrate the benefits of early identification of psychosocial problems and early intervention toward rehabilitation of cancer patients. An experimental group was given selected psychological and social support for improving their overall emotional status and managing selected, known crises, such as reentry into school and work, reestablishment of home and work functions, removal of negative attitudes toward use of supportive devices, etc.

MODIFICATION OF EMPLOYER'S ATTITUDES TOWARD THE EMPLOYMENT OF WORK-ABLE CANCER PATIENTS These projects attempted to detect barriers to employment, both attitudinal and policy, that are prevalent among employer groups. The goal of the projects was to modify employer attitudes in an effort to improve the employment and/or reemployment of cancer patients.

Policy Implementation Demonstrations

The cancer control and rehabilitation program supports a limited number of "social" policy implementation demonstrations. They include the following.

SMOKING EDUCATION These projects were aimed at promoting preventive methods for lung cancer. The demonstration contained a component that demonstrated smoking cessation techniques. Another aspect of the demonstration was aimed at preventing junior high school students from starting to smoke.

PSYCHOSOCIAL REHABILITATION OF CANCER PATIENTS These projects were aimed at demonstrating the effectiveness of individual and group intervention techniques in improving the level of psychosocial functioning of cancer patients and their families. In contrast to some of the more experimental programs classified as policy formulation demonstrations, this demonstration was intended to "show off" a successful technique that could be implemented in other cancer treatment programs.

For Further Information

Write National Cancer Institute, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,501	1,618	263		4,382		1,142	1,555	2,697	7,079
1976	2,351	1,837	299		4,487		1,296	1,765	3,061	7,548
1977	2,632	1,735	282		4,649		1,225	1,668	2,893	7,542

The National Heart, Lung, and Blood Institute provides leadership for a national program on diseases of the heart, blood vessels, lungs, and blood. The institute plans, fosters, and supports a coordinated program of research, investigation, clinical trials, and demonstrations relating to the causes, prevention, diagnosis, and treatment of heart, blood vessel, lung, and blood diseases.

Research

The institute's social research activities are concentrated in the area of hypertension and coronary heart disease. Research is funded to develop social and behavioral instruments for identifying behavioral factors in coronary heart disease. Specific population groups are analyzed for the psychological, socioeconomic, and life situation factors that may lead to heart disease. Racial and socioeconomic factors related to hypertension are analyzed. The institute funds behavioral research on family behavior to see whether the family can be used as an instrument to assist patients in coping with the stress of adhering to post-illness medical regimens.

Policy Formulation Demonstrations

The institute supports several comprehensive sickle-cell disease centers. The centers combine research and demonstration projects to launch a coordinated attack on the disease. A major component of the centers is a community education and counseling program. The "community" aspects of this demonstration have been included, while the "treatment" aspects have been excluded from the above totals.

Development of Materials

A major activity of the institute is supporting educational activities that emphasize the prevention of heart and lung disease. A series of educational materials has been developed concerning hypertension. The National Research and Demonstration Center for Heart and Vessel Disease has supported the development of materials on smoking.

Dissemination

The major dissemination activity of the institute is the National High Blood Pressure Education Program. This is a nationwide media and literature dissemination program aimed at creating and enhancing the awareness of both health professionals and the general public to the dangers of untreated high blood pressure and the benefits of treatment.

For Further Information

See *National Heart, Lung, and Blood Institute Catalog of Information and Educational Materials*, a publication of the institute, or write National Heart, Lung, and Blood Institute, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	12.137				12.137			140	140	12,277
1976	10.336				10.336			135	135	10.471
1977	10.956				10.956			130	130	11,086

The mission of the National Institute of Child Health and Human Development is to contribute to the health of citizens through efforts to understand the many factors, both biological and behavioral, related to the adaptation of the world's population to available resources and the expansion of knowledge on family planning, child health, maternal health, and human development.

The institute serves as a focal point for major scientific research directed toward family planning and improved health for mothers and children. The goals of the institute that are accomplished through research are to ensure a pregnancy and subsequent infancy of maximum health and to provide conditions for the optimum development of the child so that full physical and mental potential can be attained by the adult. These objectives are interdependent with a broad understanding of family structure, the dynamics of human population, and the reasonable regulation of its growth. The institute is interested in all problems affecting human development.

Research

The institute's social research is conducted in two centers: the Center for Population Research and the Center for Research on Mothers and Children.

CENTER FOR POPULATION RESEARCH The Center for Population Research has responsibility for understanding the forces affecting population growth, the development and evaluation of contraceptive methods, and the discovery of factors that determine acceptability of contraceptive methods and how they influence fertility patterns. With regard to social research, the center's objective is to develop scientifically valid findings on the causes and effects of population growth. It is hoped that these findings will provide the basis for rational decisions by both individuals and governments in matters affecting population growth and distribution. Social research is supported on:

○ interrelationships between social change and population size, structure, and distribution, with particular emphasis placed upon social, economic, and other determinants and consequences of population change.

○ trends in fertility as affected by age at marriage, divorce, and abortion.

○ interrelationships among family structure, sexual behavior, fertility, illegitimacy, and abortion.

○ social, economic, and psychological consequences on both parents and children of various childbearing patterns.

○ analysis of policies aimed at regulating population and which indirectly affect population growth and distribution.

CENTER FOR RESEARCH ON MOTHERS AND CHILDREN The Center for Research on Mothers and Children has as its goal the advancement of knowledge on pregnancy, infancy, and childhood. The problems of human development from both psychosocial and biological standpoints are studied with special reference to the causes, prevention, and amelioration of the problems of mentally retarded children and the developmentally disabled. Social research is supported in the following areas.

Growth and Development This program is concerned with human growth and development from birth through adolescence to maturity. The program supports fundamental research to broaden the understanding of the complex interplay of factors that determine and affect the proper emergence and development of the biological, intellectual, and social characteristics of the individual. Research is supported on: nutrition, learning and cognitive development, human communications, adolescent development, intellect development, and adolescent socialization.

Mental Retardation Social research focuses on optimizing the intellectual and social performance of those already handicapped and reducing the impact of dysfunction on the family and community. Research is supported on: studies of family interaction patterns; patterns of care and service delivery; and the impact of public and professional attitudes on the behavior of retarded persons.

For Further Information

Write National Institute of Child Health and Human Development, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,457				3,457			259	259	3,716
1976	3,284				3,284			271	271	3,555
1977	3,547				3,547			279	279	3,826

The mission of the National Institute of Neurological and Communicative Disorders and Stroke is the identification, stimulation, and support of essential research activities aimed at improving diagnosis, treatment, and prevention of disorders of the nervous system, the neuromuscular apparatus, the ear, human communication, and the senses of taste, smell, touch, and pain. The institute is concerned with certain disorders of the young (cerebral palsy, epilepsy), of adulthood (head and spinal cord injury, multiple sclerosis), and of the aged (stroke, Parkinson's disease).

Research

Social research is primarily focused on communication. Studies are funded to develop models of linguistic performance and analyze language acquisition. The institute supports research to measure children's language performance. The major objective of this research is to improve the understanding of language impairments in neurologically damaged children. The study of memory codes and sentence comprehension in children is also funded by the institute.

For Further Information

Write National Institute of Neurological and Communicative Disorders and Stroke, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

NATIONAL LIBRARY OF MEDICINE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,321				1,321		500	16,887	17,387	18,708
1976	1,321				1,321		550	16,945	17,495	18,816
1977	1,585				1,585		570	18,740	19,310	20,895

The National Library of Medicine (NLM) is the world's largest research library in a single scientific and professional field. The library has a statutory mandate from Congress to apply its resources broadly to the advancement of medical and health-related sciences. It collects, organizes, and makes available biomedical information to investigators, educators, and practitioners and carries out programs designed to strengthen and develop new medical library services in the United States. It is also the central resource of the existing national biomedical information system.

The Health Services Research Act of 1974 authorized a number of new programs for the National Library of Medicine leading to better access and utilization of health information. The programs assist the health community in finding ways for more rapid and widespread communication of biomedical information.

Research

The National Library of Medicine supports two types of research projects. The first consists of historical studies of the medical sciences and public health practices. Examples include the history of mental hospitals in the United States to 1900; the early history of public health in Western Europe; the diagnosis and treatment of asylum inmates 1824–1860; the development of anatomical sciences (Galen to Vesalius); the conceptual background of eighteenth century medicine; and science, medicine, and modernization in East Africa.

The second type of research support focuses on library and information technology. Examples of this research include a study of information needs of practicing physicians; a new approach to organizing medical knowledge; the establishment of an information system for the study of bioethics in universities; and the development of new models for medical information communication systems.

Dissemination

The dissemination of biomedical research represented another grey area for the Study Project survey. After consultation with library staff, it was decided to include the information retrieval systems of the library and their dissemination network activities. Library staff noted that recent legislation had emphasized the health service delivery role of the library. Thus, the dissemination activities of the library were viewed as part of the health service delivery system and hence its activities were classified as "social." The library supports the following dissemination activities.

NATIONAL MEDICAL AUDIOVISUAL CENTER The center is responsible for the development of a national program to improve the quality and use of biomedical audiovisuals in schools of health professionals. The center operates an audiovisual distribution system; compiles catalogs and indices of audiovisual materials; assists schools in planning and designing audiovisual facilities; and designs, develops, tests, and evaluates audiovisual instructional materials.

MEDLARS (MEDICAL LITERATURE ANALYSIS AND RETRIEVAL SYSTEM) This is an information retrieval system developed to achieve rapid bibliographic access to NLM's vast store of information.

MEDLINE (MEDLARS ON-LINE) This system provides an on-line bibliographic search capability through terminals in libraries at universities, hospitals, and research institutions.

REGIONAL MEDICAL LIBRARY PROGRAM This program supports the development of a dissemination network. A major goal of this program is to use and build upon existing health institutions and networks for improved information access.

LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS The center has the responsibility within NLM for improving health care delivery, medical education, and biomedical research through new applications of computer and communication technology. The center also serves as a focal point within HEW for coordination of biomedical communications systems and network projects.

For Further Information

Write National Library of Medicine, National Institutes of Health, Department of Health, Education, and Welfare, Bethesda, Md. 20014.

NATIONAL INSTITUTES OF HEALTH: OTHER AGENCIES

Fogarty International Center for Advanced Study in the Health Sciences

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	673				673					673
1976	652				652					652
1977	900				900					900

The Fogarty International Center for Advanced Study in the Health Sciences was created to advance knowledge in the biomedical and allied sciences and to relate new knowledge to current society. The center was created to study problems in fundamental science, to achieve a greater understanding of the biological and behavioral sciences through advanced study, and to identify the legal, ethical, social, and economic problems that may arise from new findings in biomedical research. The center has sponsored conferences in such fields as human genetics, population and family planning, and environmental health problems. Through the exploration of such undertakings at the center, ideas and syntheses may have an impact upon the future development of medical and biological sciences and the nature of health action in the future.

For Further Information

Write Fogarty International Center for Advanced Study in the Health Sciences, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

National Eye Institute

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	578				578					578
1976	578				578					578
1977	614				614					614

The National Eye Institute conducts and supports research related to the prevention, etiology, diagnosis, and treatment of eye disease and disorders of the visual system. Behavioral research is funded to study sensory processes, mechanisms, and systems of sensation and perception. Much of the behavioral research is geared toward better understanding of sensorimotor disorders.

For Further Information

Write National Eye Institute, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

National Institute on Aging

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	110				110					110
1976	110				110					110
1977	179				179					179

The National Institute on Aging was created in 1974 to conduct and support biomedical and behavioral research to increase knowledge of the aging process. The diseases and other special problems and needs of the elderly are studied. Research is funded on the psychosocial problems of the elderly. This area includes research on probable future age structures of the population and studies of cognitive functioning during the aging process. Other studies examine the health impact of interpersonal relations, worklife, and retirement in the aging and aged. Studies are conducted on the impact of housing and institutional care on health.

For Further Information

Write National Institute on Aging, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

National Institute of Allergy and Infectious Diseases

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	806				806					806
1976	806				806					806
1977	919				919					919

The National Institute of Allergy and Infectious Diseases conducts and supports research that will contribute to a better understanding of the causes of allergic, immunologic, and infectious diseases and to the development of better means of preventing, diagnosing, and treating these illnesses. The institute is concerned with the following infectious diseases: venereal diseases, hepatitis, influenza, and other viral respiratory infections. Social research is concerned with the study of "human ecology." These studies examine social systems as modes of adaptation of human population to environmental conditions. The relationship between infectious diseases and environmental conditions is analyzed.

For Further Information

Write National Institute of Allergy and Infectious Diseases, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

National Institute of Arthritis, Metabolism, and Digestive Diseases

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	296				296					296
1976	275				275					275
1977	308				308					308

The National Institute of Arthritis, Metabolism, and Digestive Diseases conducts and supports research related to a broad array of diseases that are characterized by chronicity and long-term disabling effects rather than by mortality—illnesses such as arthritic disease, diabetes, liver disease, blood disease, and kidney disease. Social research in the institute is primarily concerned with the relationship between human behavior and biological correlates.

For Further Information

Write National Institute of Arthritis, Metabolism, and Digestive Diseases, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

National Institute of Dental Research

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	397				397					397
1976	385				385					385
1977	412				412					412

The National Institute of Dental Research conducts research on the causes, prevention, diagnosis, and treatment of oral and dental diseases and conditions. The institute has a small program of pain control and behavioral studies. In addition to behavioral studies directly related to pain, research is supported on the psychological aspects of a variety of oral-facial problems. The program also supports studies concerning the psychological factors related to accepting dental health care.

For Further Information

Write National Institute of Dental Research, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

National Institute of Environmental Health Sciences

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,189				1,189					1,189
1976	1,154				1,154					1,154
1977	1,569				1,569					1,569

The National Institute of Environmental Health Sciences serves as a national resource and focal point for environmental health research. Its mission is to develop an understanding of the factors and biological mechanisms involved in human disease and disorders of environmental origins. A major goal is to develop understanding of the interrelationships between chemical and physical factors in the environment and human disease and to translate that knowledge into action to relieve human problems of environmental origin.

In addition to the general contribution to biomedical and clinical knowledge, institute research is intended to provide health criteria for the establishment of standards by those federal agencies charged with regulatory response. A small amount of research is devoted to the social and legal aspects of environmental health.

For Further Information

See *National Institute of Environmental Health Sciences Research Programs, 1976–1977*, a publication of the institute, or write National Institute of Environmental Health Sciences, National Institutes of Health, Department of Health, Education, and Welfare, P.O. Box 12233, Research Triangle Park, N.C. 27709.

National Institute of General Medical Sciences

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	341				341			12	12	353
1976	300				300			13	13	313
1977	346				346			13	13	359

The National Institute of General Medical Sciences supports research and training in basic or general biomedical sciences that have significance for two or more NIH institutes and are outside the general area of responsibility of any other institute. The institute supports behavioral science research related to the study of trauma and burns. This type of research includes the study of the effectiveness of cognitive strategies in reducing pain.

For Further Information

Write National Institute of General Medical Sciences, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

Office of the Director

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	665				665			59	59	724
1976	705				705					705
1977	797				797					797

The director of the National Institutes of Health provides overall leadership to NIH activities and maintains close liaison with the assistant secretary for health on matters related to medical research, research training, health professional education and training, manpower resources, and biomedical communications. The office is also responsible for assessing the growth of medical research nationally and applying those findings to future program planning. In connection with its responsibilities, the office has funded the following projects: a study of the economic return for training in bioscience; a study of how the employment market absorbs new biomedical scientists; a study of the need for biomedical and behavioral research personnel; and research on the trends in cost of diseases related to biomedical research.

For Further Information

Write Office of the Director, National Institutes of Health, Department of Health, Education, and Welfare, 9000 Rockville Pike, Bethesda, Md. 20014.

10 Department of Health, Education, and Welfare: Education Agencies

Education is the largest social knowledge production and application policy area in the Department of Health, Education, and Welfare. In fiscal 1977, the three education agencies obligated nearly $313 million in social knowledge production and application activities. The education policy area accounts for 43 percent of the department's total social knowledge production and application obligations.

The three agencies constituting the Education Division of HEW are:

Office of the Assistant Secretary for Education, which is responsible for the general direction and supervision of the Education Division. The office consists of the following components: the National Center for Education Statistics, the Fund for the Improvement of Postsecondary Education, and the Office of the Assistant Secretary.

Office of Education (OE), which is responsible for aiding the public in the establishment and maintenance of efficient school systems and promoting the cause of education. The agency also has responsibility for administering programs of federal financial assistance for education.

National Institute of Education (NIE), which provides support for research, development, and dissemination activities that seek solutions to the problems of students, teachers, administrators, and decision makers at all levels of education.

TABLE 10-1 Education Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Office of Education	200.3	Demonstrations	Operating agency	Knowledge for third parties
National Institute of Education	95.0	Research/ demonstrations	R&D agency	Improvement of federal policies
Assistant Secretary for Education	17.6	Research	Mixed	Mixed
TOTAL	312.9			

[a] See Chapter 2 for a more detailed discussion.

Table 10-1 lists the three agencies and their fiscal 1977 obligations. OE has the largest figure for social knowledge production and application obligations, accounting for more than 60 percent of the Education Division total. It is important to note that the creation of NIE in 1972 as an educational R&D agency did not diminish OE's role as a major funder of social knowledge production and application. While some of the research activities of OE were transferred to NIE, OE continued to foster innovation and reform through the use of demonstrations and the development of materials.

For Further Information

For detailed analyses of the funding of educational research and development in the federal government, see *1976 Databook: The Status of Educational Research and Development in the United States*, R&D System Support Division, 1976; and R&D System Studies Technical Reports: *1975 Federal Funding for Education Knowledge Production and Utilization: A Composite Estimate, by Agency, Using Four Data Bases* (Number 1); *Federal Funding for Education, Knowledge Production and Utilization: KPU Function, by Agency* (Number 2); and *1975 Federal Funding for Education, Knowledge Production and Utilization: Project Content and Performer, by Agency* (Number 3). These four documents are publications of NIE and can be obtained from the National Institute of Education, Department of Health, Education, and Welfare, 1200 Nineteenth Street, N.W., Washington, D.C. 20208.

ASSISTANT SECRETARY FOR EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	7,513	336		2,903	10,752		4,700	345	5,045	15,797
1976	8,086	60		4,199	12,345		4,140	376	4,516	16,861
1977	9,382			4,275	13,657		4,000		4,000	17,657

The Office of the Assistant Secretary for Education is responsible for both the direction and supervision of the Education Division of HEW and the coordination of educational activities performed elsewhere in the department. As part of its function, the Office of the Assistant Secretary for Education serves to ensure that the department provides professional and financial assistance to strengthen education in accordance with federal laws and regulations. In addition the assistant secretary serves as the principal adviser to the secretary of HEW on education affairs. Table 10-2 lists the components of the Office of the Assistant Secretary for Education.

The assistant secretary for education chairs the Federal Interagency Committee on Education (FICE), which functions to improve coordination of the educational activities of federal agencies; to identify the nation's educational needs and goals; and to advise and make recommendations on educational policy to the secretary of HEW. FICE includes the Subcommittee on Educational Research, Development, Dissemination and Evaluation. In March 1977, the subcommittee published a report, *Federal Educational Research, Development, Dissemination, and Evaluation Efforts,* which is available from the Office of the Assistant Secretary for Education.

For Further Information

Write Assistant Secretary for Education, Department of Health, Education, and Welfare, 200 Independence Avenue, S.W., Washington, D.C. 20202.

TABLE 10-2 Office of the Assistant Secretary for Education Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Fund for the Improvement of Postsecondary Education	5.0	Development of materials	Operating agency	Knowledge for third parties
National Center for Education Statistics	11.7	Research/ general purpose statistics	Statistical agency	Collection of statistics
Office of the Assistant Secretary for Education	0.9	Research	Policy-making office	Improvement of federal policies
TOTAL	17.6			

[a] See Chapter 2 for a more detailed discussion.

FUND FOR THE IMPROVEMENT OF POSTSECONDARY EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,161	336			1,497		4,700	345	5,045	6,542
1976	1,000	60			1,060		4,140	376	4,516	5,576
1977	1,000				1,000		4,000		4,000	5,000

The Fund for the Improvement of Postsecondary Education (FIPSE) was established in 1972 to encourage the reform and improvement of postsecondary education through the support of innovative projects at the local level. Grants and contracts are awarded to postsecondary educational institutions and agencies to support projects that demonstrate new and exemplary approaches to postsecondary education or add to the understanding of existing successful approaches.

The fund operates more in the mode of a private foundation than an R&D agency. FIPSE supports projects in real situations that are intended to bring about tangible results. The fund can be viewed as a source of "seed money" for innovative projects. This strategy was developed as an alternative to the traditional R&D approach to bring about improvements in education.

FIPSE represents another borderline case in the Study Project survey. How much of its $11.5 million total budget in fiscal 1977 should be included as social knowledge production and application? Into what knowledge production and application categories do fund activities fall? Should "innovative projects" funded by FIPSE be labeled "demonstrations"? After close examination of the FIPSE program, it was decided that the majority of activities funded fall outside the Study Project's definition of social knowledge production and application. Instead of "demonstrations," the majority of activities of FIPSE were viewed as "local development"—not a social knowledge production and application activity and thus excluded. Local development activities are an attempt to build and improve capacity at the local level. While national applicability and the building of knowledge may be evident in these projects, they are of secondary importance; of prime importance is the improvement of local capacity.

Research

Some activities of FIPSE, particularly research, were found to fit into a knowledge production and application framework. While the fund does not encourage proposals for basic research in education and does not view itself as a research funding agency, it does entertain proposals for policy-oriented studies and feasibility studies that are clearly related to postsecondary education reform. Examples of such research are:

- a study of the ways in which states allocate scarce resources to institutions of higher learning and the development of criteria for states to use in such cases;
- a study of competence-based learning programs;
- a study of the impact and effectiveness of alternative undergraduate colleges; and
- a feasibility study of allocating state funds to universities on the basis of performance criteria that would serve as an incentive for the improvement of instructional performance.

Development of Materials

A major goal of FIPSE is to extend effective educational opportunities to those not adequately served by the system. Other goals are to improve instruction for more effective education and provide learners with marketable skills. All these goals frequently require the development of new curriculum materials. To this end, FIPSE supports the development of materials. Examples of such projects are:

- development of self-paced curricula materials on statistical research methods;
- development of a competency-based curriculum on community development;
- development of models and self-paced curricula for mental health workers;
- development of Career Competence Curricula Portfolios as an alternative to traditional degree programs; and
- development of instructional materials uniquely adapted to the needs of the Spanish-speaking community.

For Further Information

For more information on the activities of FIPSE, see *Resources for Change, A Guide to Projects 1976-77; Fund for the Improvement of Postsecondary Education Program Information and Application Procedures,* which are publications of FIPSE, or write Fund for the Improvement of Postsecondary Education, Department of Health, Education, and Welfare, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

NATIONAL CENTER FOR EDUCATION STATISTICS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5.390			2.903	8,293					8,293
1976	6.124			4.199	10.323					10,323
1977	7,420			4.275	11.695					11,695

The National Center for Education Statistics (NCES) was established in 1965 in the Office of Education and given the charge to develop and provide comprehensive statistics about the state of education in the

United States. In 1974, NCES was detached from the Office of Education and placed directly under the Office of the Assistant Secretary for Education. At the same time, the mission of the center was enlarged to include not only data collection but also analyses and interpretation of education statistics. Currently, NCES has the following responsibilities:

- to collect and report full and complete statistics on the condition of education in the United States;
- to conduct and publish reports on specialized analyses of the meaning and significance of such statistics;
- to assist state and local educational agencies in improving and automating their statistical and data collection activities; and
- to review and report on educational activities in foreign countries.

Since many of the activities of NCES are now one-time studies and surveys to meet the immediate needs of policy makers, the Study Project felt that it would be more appropriate to classify many of these activities as research, rather than to consider all of the agency's obligations as general purpose statistics.

Research

The center currently conducts many special studies and analyses that we have classified as research. Studies mandated by Congress include examinations of the following subjects: bilingual education, measures of poverty, alternative methods for updating the basis of distribution of Title I of the Elementary and Secondary Education Act, the impact aid program, sex discrimination in education, athletic injuries, and safe schools. In addition, research is continually conducted to develop statistical techniques to solve conceptual and measurement problems in surveys and analyses.

A major activity of NCES is the National Longitudinal Study of the High School Class of 1972. This effort is designed to provide information on the experiences of a national sample of students as they move out of the high school system into postsecondary activities, get married, go to vocational school, or become unemployed.

The center also supports the National Assessment of Education Progress, an annual survey of the knowledge, skills, understanding, and attitudes of certain groups of young Americans. These surveys measure achievement and report changes at regular intervals. The data highlight categories of students whose performance in a given subject meets or falls short of national educational expectations and reveal strengths or weaknesses within each subject.

General Purpose Statistics

A primary function of the center is still the collection of general purpose statistics portraying the condition of education in the United States and abroad. These data enable the center to assess changing trends in education. Educational statistics are collected on:

- elementary and secondary education, which includes data on enrollment, finances, racial composition, teachers and other instructional staff, etc.;
- higher education, which includes data on enrollment, staff, number of degrees, finances, facilities, etc.;
- adult and vocational education, which includes data on participation, teacher and student characteristics, etc.; and
- multilevel library surveys, which includes data on the number of public libraries, college and university libraries, elementary and secondary school libraries, and other libraries.

The principal periodic reports of the center are presented in Table 10-3.

TABLE 10-3 Principal Periodic Reports of the National Center for Education Statistics

Digest of Educational Statistics (annual)
Projections of Educational Statistics (annual)
Statistics of Trends in Education (annual)
Bond Sales for Public School Purposes (annual)
Education Directory: Public School Systems (annual)
Offerings and Enrollments in Public Secondary Schools (occasional)
Preprimary Enrollment (annual)
Statistics of Local Public School Systems (annual)
Statistics of Public Elementary and Secondary Day Schools (annual)
Statistics of Nonpublic Elementary and Secondary Schools (quinquennial)
Statistics of State School Systems (biennial)
Earned Degrees Conferred (annual)
Education Directory: Higher Education (annual)
Full Enrollment in Higher Education (annual)
Financial Statistics of Institutions of Higher Education (annual)
Numbers and Characteristics of Employees in Institutions of Higher Education (occasional)
Residence and Migration of College Students (occasional)
Students Enrolled for Advanced Degrees (annual)
Library Statistics of Colleges and Universities (biennial)
Adult Basic Education Program Statistics (annual)
Participation in Adult Education (occasional)

SOURCE: Statistical Policy Division, Office of Management and Budget, *Statistical Services of the United States Government*, 1975 Revised Edition, pp. 182-183.

For Further Information

See *Projects, Products and Services of the National Center for Educational Statistics*, a publication of NCES, or write National Center for Educational Statistics, Department of Health, Education, and Welfare, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

OFFICE OF THE ASSISTANT SECRETARY FOR EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	962				962					962
1976	962				962					962
1977	962				962					962

Research

In order to provide the assistant secretary with a resource for in-depth and sustained policy analysis, the Office of the Assistant Secretary for Education supports three policy research centers, which carry out policy research on:

- elementary/secondary school finance and education delivery systems, which includes research on the federal role in elementary/secondary school finance, alternative education delivery systems, etc.;
- postsecondary education, which includes the study of postsecondary education finance, the school-to-work transition, and adult education; and
- education of special-needs groups, which includes research on the identification of special-needs groups, issues in compensatory education, and the extent and effects of racial segregation in the schools.

The office has a unique working relationship with the three centers. Research conducted at the three centers includes both long-term analysis and short-term research in response to the assistant secretary's information needs. A work statement is developed every six months between the assistant secretary's office and each of the three centers. Topics of analysis are defined in these statements, and specific tasks with explicit deadlines are assigned to each center. Some statements require the building of data models to examine effects of alternative policy decisions. The general function of the policy research centers is to analyze and synthesize existing information in a policy-relevant form.

For Further Information

Write Office of the Assistant Secretary for Education, Department of Health, Education, and Welfare, Rm 314-G, Hubert Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201.

NATIONAL INSTITUTE OF EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	11,700	38,034	241		49,975		17,515	6,330	23,845	73,820
1976	21,828	24,003	143		45,974	2,655	15,436	10,229	28,320	74,294
1977	31,878	29,484	172		61,534	3,196	13,432	16,838	33,466	95,000

The National Institute of Education (NIE) was established by Congress in 1972. The creation of the institute was the culmination of several years of bipartisan efforts to establish a separate organization within HEW devoted exclusively to education R&D. The institute was given four major responsibilities:

- ○ to help solve or alleviate the problems of American education and to promote its reform and renewal;
- ○ to advance the practice of education as an art, science, and profession;
- ○ to strengthen the scientific and technological foundations of education; and
- ○ to build an effective educational research and development system.

The institute is now the fourth-largest agency funder of social knowledge production and application and funds approximately one-fourth of all the educational social knowledge production and application activities in the federal government.

The fiscal 1977 figure for NIE includes a $5-million transfer from the Office of Education to NIE for a study of the Title I Compensatory Education Program. Thus, NIE's fiscal 1977 total figure is $5 million larger than the President's fiscal 1977 budget request. It should also be noted that instead of including administrative expenses as a separate division of NIE, the Study Project allocated those funds to each division.

Table 10-4 presents the working groups of NIE and their fiscal 1977 social knowledge production and application obligations.

For Further Information

See *Catalog of NIE Education Products*, vols. 1 and 2; *Educational Research: Limits and Opportunities*, Third Annual Report of the National Council on Educational Re-

TABLE 10-4 National Institute of Education Working Groups that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Group	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity
Basic Skills	19.8	Development of materials
Dissemination and Resources	17.1	Dissemination
Education and Work	10.4	Policy formulation demonstrations
Educational Equity	16.2	Research
Finance and Productivity	15.5	Policy formulation demonstrations
School Capacity for Problem Solving	7.6	Policy formulation demonstrations
Other activities	8.2	Policy formulation demonstrations
TOTAL	95.0	

search; *Educational Research in Progress: Fundamental Research and the Process of Education*, Report to the National Institute of Education by the National Research Council. These documents are publications of NIE. Or write National Institute of Education, Department of Health, Education, and Welfare, 1200 Nineteenth Street, N.W., Washington, D.C. 20208.

BASIC SKILLS GROUP

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	4.642	3.877			8.519		12.279		12,279	20,798
1976	5,778	2,047			7,825		10,521		10,521	18,346
1977	7,891	2,535			10.426		9,345	57	9,402	19,828

The goal of NIE's Basic Skills Group is to provide American educators with the tools necessary to make further progress in helping all individuals acquire those literacy skills and other skills necessary for effective participation in society. The group is responsible for funding research on the teaching and learning of basic subjects (emphasis placed on reading and mathematical skills) and the measurement of student progress.

Research

The group's research activity is geared to studying how children learn, how teachers teach basic skills, and how this learning and teaching should be evaluated. Specific projects have focused on reading comprehension; how teaching skills vary by the subject taught; and developing ways to overcome test bias in measuring minority student performance. Research is supported on analyzing the effect of court decisions on education, with emphasis on the contribution that social science research can make in formulating such decisions. In addition, the group is supporting the establishment of a center for the study of reading, which will assist educators, researchers, and education policy makers in dealing with problems related to reading and reading instruction.

Policy Formulation Demonstrations

The basic skills program sponsors experimental work in developing testing materials that will ascertain precisely how well an individual has mastered a skill or subject. Because these projects are experimental and involve much testing, they have been classified as policy formulation demonstrations.

Development of Materials

The largest portion of the Basic Skills Group budget is devoted to curriculum development. By providing new materials for classroom instruction, the group expects to provide a sound basis for the improvement of education and equal educational opportunity. The development of basic skills materials is planned by NIE in conjunction with the nation's educational practitioners and researchers. The group has supported the development of curriculum skills programs for kindergarten through sixth grades, which are now being used in over 2,200 schools. New programs of individualized instruction have been funded. The regional educational laboratories and R&D centers have received funds to develop materials that can be readily used in schools.

DISSEMINATION AND RESOURCES GROUP

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	693				693			6,240	6,240	6,933
1976	469				469			10,229	10,229	10,698
1977	345				345			16,781	16,781	17,126

The Dissemination and Resources Group is responsible for improving the dissemination and utilization of knowledge for solving educational problems. Its activities include the study, evaluation, and improvement of the capacities of institutions to provide and use knowledge in improving education.

Research

The group supports research to monitor the nation's educational R&D system, analyze its strength and weaknesses, and recommend needed improvements. Research is also supported to identify and assess ways in which local systems can effectively use the results of educational R&D to improve educational practice.

Dissemination

The group supports a wide range of dissemination activities. The increased obligations over the past three years reflect the growing emphasis being placed on dissemination as a major activity of the institute. Types of dissemination activities fall into the following three clusters.

CREATION OF DISSEMINATION NETWORKS The group has given grants to over 20 states to support the development of comprehensive dissemination programs. A dissemination capacity is also being built by supporting state education agencies, professional associations, and other key linkage agencies in education.

DOCUMENTATION, REFERENCE, AND INFORMATION SERVICES The group supports 16 Educational Resources Information Centers (ERIC) Clearinghouses that collect, screen, synthesize, and disseminate information and reports on work in selected areas of education. An inhouse effort produced a catalog of all the products of past NIE programs. Research-based publications geared to the needs of practicing educators have been supported.

TECHNICAL ASSISTANCE The group provides technical assistance support to educators in adopting or adapting verified practices and products. The group assists other NIE organizations in designing and developing strategies for dissemination and diffusing the results of NIE developments, including the management of the NIE copyright program.

EDUCATION AND WORK GROUP

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	132	13,869	241		14,242		1,146	90	1,236	15,478
1976	1,617	10,582	143		12,342		1,348		1,348	13,690
1977	2,707	5,512	143		8,362		2,098		2,098	10,460

The Education and Work Group is responsible for carrying out a program to improve the preparation of youth and adults for entering and progressing in careers. The group develops and tests projects that increase understanding of the issues associated with education and work.

Research

The group supports research on a variety of topics related to education and work. Research on the process of career development is supported. Research is conducted on the socialization and decision-making processes as they affect career development. An example of a socialization study is research on how children's early attitudes and aspirations about the world of work are formed. Other studies analyze how these attitudes and aspirations affect later education and occupational decisions and how educational programs can more effectively intervene in the career decision process. Other studies are aimed at determining the role that the federal government should play in fostering skill acquisition.

Policy Formulation Demonstrations

A major activity is the support of pilot programs that will develop the skills and abilities necessary for successful entry and progress in careers. Several demonstration projects were completed during fiscal 1975 and fiscal 1976, hence the decrease in funds for fiscal 1977. Examples of these demonstrations are described below.

THE EXPERIENCE-BASED CAREER EDUCATION PROGRAM This project was to develop and test an alternative approach to completing the final years of high school. The program allowed high school students to explore a variety of careers through unpaid jobs in the community while maintaining a full academic program.

ALTERNATIVE HIGH SCHOOL FOR 11TH AND 12TH GRADE SCHOOL DROPOUTS This program helped students by providing career education and an academic program leading to a high school degree and entry into further technical training, college, or a job training program.

RURAL RESIDENTIAL CAREER EDUCATION PROGRAM This program offered low-income families in six western states assistance in making decisions about entering or reentering the labor market, obtaining career education, or acquiring a postsecondary degree.

Development of Materials

Another major activity is support for materials development in career education. Simulation models have been developed to assist students in learning about careers. A career decision making program for high school students was developed, which included career information guides and background materials. A television series for students in grades four to six was developed on career awareness. More effective guidance and counseling materials have also been developed.

EDUCATIONAL EQUITY GROUP

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5,693				5,693		2,772		2,772	8,465
1976	8,203	212			8,415		2,627		2,627	11,042
1977	12,546	1,695			14,241		1,989		1,989	16,230

The Educational Equity Group conducts research and other activities to investigate and develop ways to help educators meet their responsibilities in providing a high-quality education for students whose opportunities have been limited because of their home language, culture, race, ethnicity, sex, socioeconomic background, conduct problems, or because they are not profiting from a typical school environment. The programs address the problems of students who are least well served by the education system.

Research

Research activities are carried out in the following areas.

RESEARCH ON WOMEN The program has conducted the following studies: a 10-year review of the sex role literature; a survey of women's participation and rewards in the educational research community; the development of a model of achievement patterns of women and their relationship to problems of adulthood; and the development of a theoretical model to explain sex segregation of social institutions.

COMPENSATORY EDUCATION This program carries out comprehensive studies and evaluation of compensatory education programs such as Title I of the Elementary and Secondary Education Act and other programs that deal with the disadvantages of students with low socioeconomic status.

DESEGREGATION STUDIES This area carries out a program of research to investigate problems associated with school desegregation and to seek solutions to help educators determine the best ways to educate students in desegregated settings.

SCHOOL DISCIPLINE STUDIES This area carries out research to investigate and seek solutions to problems associated with disruption, crime, and student conduct problems in schools.

Development of Materials

The Educational Equity Group also supports the development of curriculum materials for disadvantaged students. The multicultural/bilingual division carries out a program to address the problems of students whose native language is not English, who speak a nonstandard dialect of English, or whose culture differs significantly from that of the majority of American students. This group has developed criterion reference tests to assess children's competence in reading Spanish for kindergarten through grade six. New bilingual curricula have also been developed to improve bilingual instruction. Two catalogs of bilingual curriculum materials have also been developed to assist schools.

FINANCE AND PRODUCTIVITY GROUP

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975		19,543			19,543					19,543
1976	4,383	8,165			12,548	2,655			2,655	15,203
1977	5,988	8,546	29		14,563	897			897	15,460

The Finance and Productivity Group is responsible for carrying out a program to improve the effectiveness and efficiency of educational institutions. The program is designed to assist state and local education institutions to provide high-quality education in an era when enrollments are declining or changing, costs are continuing to rise, and courts and other public bodies are requiring new distributions of educational funds.

Research

Research is funded on the management, organization, and alternative educational delivery systems. Studies have been made of alternative financing reforms in achieving more equal standards of educational equity. Other studies have looked at competence concepts, the economics of education, and organizational studies aimed at examining the behavior of schools.

Policy Formulation Demonstrations

The Finance and Productivity Group has developed and field-tested alternative financing and management arrangements aimed at improving institutional responsiveness. The decrease in fiscal 1975 to fiscal 1976 funds is accounted by the completion of some of the experimental programs that were transferred to NIE from the Office of Education and the Office of Economic Opportunity. The largest demonstration program funded by the group was the experimental school project. Demonstrations were planned, organized, and administered to test the effects of changes in school and school systems involving a wide spectrum of components such as new administrative procedures, curriculum materials, governance structures, and instructional methods. Local school systems designed the experiments, which were aimed at improving the quality of education offered to its students. Another large demonstration project supported telecommunications satellites to demonstrate and test the effectiveness of improved access to education for those geographically isolated from schools.

SCHOOL CAPACITY FOR PROBLEM SOLVING GROUP

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	540	745			1,285		1,318		1,318	2,603
1976	781	2,290			3,071		940		940	4,011
1977	862	4,494			5,356	2,299			2,299	7,655

The School Capacity for Problem Solving Group is responsible for identifying and understanding how school systems develop the capacity for problem solving and finding ways to help other schools to do so. The program's goal is providing knowledge to states and localities on how to build capacity for sustained improvements and for generating reform and renewal at the local level. The program was established to help schools develop those organizational skills so that they will be able to improve their performance.

Research

The program supports research to study and assess the effectiveness of selected organizational strategies in initiating and sustaining school improvements. Policy issues related to problem solving are identified and studied. The group funds research to examine the basic processes underlying school organization and strategies.

Policy Formulation Demonstrations

A major activity of the group is funding demonstrations that support a variety of locally based projects aimed at some aspect of problem solving. One project, for example, is aimed at involving the community in making school decisions. Another assisted teachers in expanding their role.

The largest demonstration project was devoted to studying the effects of specific organizational strategies and analyzing the various problem-solving strategies being tried out in nine urban schools. As a consequence, the group funded a project to develop ways for helping other states and localities learn from the nine urban school demonstrations and modify problem-solving strategies to suit their own circumstances. The group is attempting to build informal networks of educators and community members as a means of spreading new ideas and problem-solving approaches.

NATIONAL INSTITUTE OF EDUCATION: OTHER ACTIVITIES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1976	597	707			1,304					1,304
1977	1,539	6,702			8,241					8,241

This category includes several other offices and activities of NIE. The largest activity is for the support of education laboratories and R&D centers; in fiscal 1977, $3.8 million was specifically earmarked for the program, the activities of which include research and demonstrations. The "other" category also reflects more than $3 million in funds that can be used at the discretion of the NIE director; these funds are also likely to be devoted to demonstration projects. Finally, this category includes the policy research activities of the Office of Planning, Budget and Program Analysis.

OFFICE OF EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	12,192	51,577	15,212	64	79,045	69,328	24,434	14,638	108,400	187,445
1976	15,069	57,371	16,579		89,019	76,668	34,310	12,628	123,606	212,625
1977	11,900	47,362	13,508		72,770	76,090	30,120	21,322	127,532	200,302

The Office of Education (OE) is the largest single agency funder of social knowledge production and application activities in the federal government. In fiscal 1977, OE obligated more than $200 million in social knowledge production and application activities. For that year OE accounted for nearly 11 percent of the federal government's total social knowledge production and application obligations and 27 percent of HEW's total.

Table 10-5 lists the major components of OE. The office consists of six bureaus and the Office of the Commissioner (which includes the Office of Planning, Budgeting and Evaluation). The Bureau of Student Financial Assistance, created in 1977, was not surveyed.

A distinguishing characteristic of OE is its unique combination of knowledge production and knowledge application activities. Table 10-6 presents the distribution of OE's knowledge production and application activities. As can be seen, only about 6 percent of OE's knowledge production and application activities was classified as research. In con-

TABLE 10-5 Office of Education Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Bureau of Education for the Handicapped	49.0	Demonstrations	Operating agency	Knowledge for third parties
Bureau of Occupational and Adult Education	33.6	Demonstrations	Operating agency	Knowledge for third parties
Bureau of Higher and Continuing Education	2.2	Development of materials	Operating agency	Knowledge for third parties
Bureau of Elementary and Secondary Education	66.8	Policy implementation demonstrations	Operating agency	Knowledge for third parties
Bureau of Indian Education	6.0	Policy formulation demonstrations	Operating agency	Knowledge for third parties
Bureau of Student Financial Assistance[b]				
Office of Planning, Budgeting and Evaluation	14.3	Program evaluation	Policy-making office	Improvement of federal policy
Office of the Commissioner	28.4	Development of materials/ dissemination	Mixed	Knowledge for third parties
TOTAL	200.3			

[a] See Chapter 2 for a more detailed discussion.
[b] Not surveyed.

TABLE 10-6 Office of Education Social Knowledge Production and Application Activities (fiscal 1977)

Activity	Percentage
Knowledge production	
Research	5.9
Policy formulation demonstrations	23.7
Program evaluation	6.7
General purpose statistics	
Total	36.3
Knowledge application	
Policy implementation demonstrations	38.0
Development of materials	15.0
Dissemination	10.6
Total	63.6
TOTAL	99.9

trast, over 60 percent of OE's knowledge production and application total is for demonstrations (policy formulation demonstrations account for almost 24 percent; policy implementation demonstrations account for 38 percent).

It is interesting to compare the distribution of OE's knowledge production and application activities with that of the government as a whole. Whereas the distribution of the federal government's activities is 67 percent for knowledge production activities and 33 percent for knowledge application activities, these figures are nearly reversed for OE. Instead of devoting its resources to knowledge production, OE has devoted nearly two-thirds of its total obligations for knowledge application activities. This fact, however, should not be totally surprising, due to the existence of a large third-party constituency—the vast education complex. Thus, the majority of OE's activities is geared to the application of existing knowledge for use by teachers, school administrators, state and local school districts, and others involved in education.

The largest knowledge application category is policy implementation demonstrations. While the Follow Through program accounts for over half the policy implementation total, the concept and the approach of policy implementation demonstrations have been widely accepted and frequently used by OE as a means of promoting the use of various educational innovations.

It should be noted that many of the policy implementation demonstrations included in the survey have not been traditionally considered either a "research" or a "development" activity. Thus, the total for OE is larger than the figure included in the NSF *Federal Funds* series statistics for research and development. It is interesting to note that over 90 percent of OE's research and development total reported to the National Science Foundation is classified as "development."

In addition to the figures collected by the National Science Foundation on OE research and development activities, figures are collected and analyzed by the Office of Management and Budget (Appendix I, *Special Analyses, Budget of the United States Government*) and the National Institute of Education (R&D System Studies Technical Reports). Those two agencies have come up with higher dollar figures for OE than those of the National Science Foundation. The National Institute of Education Technical Reports 1 and 2 used data collected by the Study Project survey, but they have modified the knowledge production/knowledge application framework presented in this volume.[1] Thus, the figures presented in this volume and the NIE figures presented in those two technical reports are not entirely compatible.

For Further Information

Write Office of Education, Department of Health, Education, and Welfare, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

BUREAU OF EDUCATION FOR THE HANDICAPPED

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	4,946	15,348	200		20,494	8,337	3,758	1,133	13,228	33,722
1976	7,515	20,420	500		28,435	18,391	4,000	3,500	25,891	54,326
1977	5,670	19,530			25,200	16,565	4,000	3,250	23,815	49,015

The Bureau of Education for the Handicapped (BEH) administers programs that help mentally, physically, and emotionally handicapped children become independent and self-sufficient. The bureau sponsors programs to identify children with handicaps and increase the number of specially trained teachers to serve them. The bureau supports efforts of state and local departments of education to improve their preschool services and acquire specialized equipment and materials for teaching the handicapped.

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[1] A list of those technical reports is presented in the beginning of this chapter.

BEH also supports research, demonstration, and dissemination activities concerning successful techniques for educating the handicapped. Table 10-7 lists the programs that support social knowledge production and application activities.

Research

The bureau supports research to raise the effectiveness and efficiency of educating handicapped children. Research activities are supported by the Innovation and Development program. Research priority areas are described below.

TABLE 10-7 Bureau of Education for the Handicapped: Programs that Support Social Knowledge Production and Application (fiscal 1977, $millions)

Program	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity
Handicapped Early Childhood Education	21.0	Policy formulation demonstrations
Innovation and Development	11.0	Research
Regional Resource Centers	5.2	Policy implementation demonstrations
Specific Learning Disabilities	5.0	Policy implementation demonstrations
Media Services and Captioned Films	3.5	Development of materials
Projects for the Severely Handicapped	3.3	Policy implementation demonstrations
TOTAL	49.0	

EARLY CHILDHOOD EDUCATION Studies are funded on the development of preschool handicapped children. Research focuses on factors affecting early educational programming; curriculum and service delivery system development; and the determination of personnel competencies.

FULL SCHOOL SERVICE With a view toward eliminating barriers to full educational opportunity for handicapped children, research is funded to study appropriate arrangements for the delivery of total educational services. Research focuses on the organization of services, teacher training, public attitudes, legislative and judicial mandates, education, finance, and community participation.

SEVERELY HANDICAPPED Research focuses on the development of systems leading to the most appropriate, least restrictive educational environment and to the deinstitutionalization of the severely handicapped. Research has also been funded on the developmental gains made by children with Down's Syndrome.

PERSONNEL DEVELOPMENT Research is focused on the effects of specific teacher behaviors; the identification of alternative staffing patterns; the cost-effectiveness of various types of in-service training; and behavior modification of emotionally disturbed children. Comparative analyses of various staff roles are also funded, e.g., studies of special teachers, resource teachers, consulting teachers, etc.

CHILD ADVOCACY Research focuses on the identification of legal, financial, and administrative constraints in the provision of full educational opportunity for handicapped children.

Policy Formulation Demonstrations

Policy formulation demonstrations are primarily supported through the Handicapped Children's Early Education Program (HCEEP). The program supports demonstrations to stimulate the development of comprehensive educational services for young handicapped children, from birth to age eight. The federal strategy is to work cooperatively with states through public and private nonprofit agencies to develop and demonstrate a wide range of education, therapeutic, and coordinated social services to help establish competent state and local programs that incorporate the best of demonstrated early education practices for handicapped youth.

The HCEEP program places emphasis on adopting, modifying, or initiating model approaches for outstanding child services to provide multifaceted services to young handicapped children. Some demonstrations are specifically funded to develop new models, while others focus on refining existing models. It is the aim of BEH that these projects and models, after considerable development, serve a large number of children. Examples of such projects include a model preschool for handicapped Indian children in Arizona; a project involving multihandicapped infants in California; a preschool program in Louisiana; a project on infant stimulation in Massachusetts; and an early intervention program for exceptional children in Virginia.

In addition to the HCEEP program, a small number of policy formulation demonstrations are supported by the Innovation and Development program. These demonstrations focus on developing and validating new service models and techniques. The demonstration projects are conducted in conjunction with the program's research and dissemination activities.

Policy Implementation Demonstrations

BEH has several programs that support policy implementation demonstrations. In addition to funding policy formulation demonstrations, the Handicapped Children's Early Education Program funds outreach projects to assist other agencies or programs in providing effective educational programming for young handicapped children. This is accomplished by helping state agencies replicate project models (or components of a model) already "proven" by a policy formulation demonstration.

The Regional Resource Centers program also supports policy implementation demonstrations. The centers were established to encourage the development and application of exemplary projects and educational programming practices for handicapped children. The centers support demonstration projects that they hope will serve as a model to assist local education agencies and state educational agencies in adopting programs of comprehensive referral services in order to integrate the specialized services needed by each child. Under such a program, the local education agency would maintain information on each child, require parent participation, and stress periodic reassessment of a child's needs and progress.

The Projects for the Severely Handicapped program supports policy implementation demonstrations that provide services to severely handicapped children and young people. The purpose of the program is to establish, encourage, and promote programmatic practices designed to meet the education and training needs of severely handicapped children and youths so that they may become as self-sufficient as possible. A typical demonstration project in this program would provide (1) services to identify and diagnose the particular needs of severely handicapped children, (2) counseling services to parents and teachers, and (3) appropriate direct education and training services. The adoption of such programs by states would reduce the need for institutionalized care.

The Learning Disabilities program seeks to stimulate state and local programs that provide comprehensive identification, diagnostic, prescriptive, and educational services for all children with specific learning disabilities. Like the other policy implementation demonstrations described above, this program is funded to serve as a model for state and local replication.

Development of Materials

Within the Media Services and Captioned Film program, the National Center for Educational Media Materials for the Handicapped and a system of Area Learning Resource Centers are supported. The national center and the resource centers design, develop, adapt, and distribute materials, techniques, and services that have been found to be effective in educating handicapped children. The national center supports a comprehensive program of activities to facilitate the use of new educational technology in education programs for handicapped persons.

The Innovation and Development program also supports the development of materials. The program has focused on developing career and vocational education curricula and other materials that meet the unique needs of handicapped students.

Dissemination

Dissemination activities are supported in several BEH programs. In addition to its other activities, the Innovation and Development program devotes a small amount of funds to dissemination. The Handicapped Children's Early Education Program (HCEEP) has a large program of dissemination and technical assistance. The HCEEP program funds the Technical Assistance Development Systems (TADS) at the University of North Carolina, which provides technical assistance to projects in the demonstration phase, carries out needs assessments, and provides consultation and other help to enable the projects to meet their objectives more effectively. TADS sponsors workshops on education for handicapped children.

Dissemination activities are also conducted in the Media Services and Captioned Film program. The national center and the resource centers train those who need to select and use materials; inform users of the most recent technological developments; and provide specific materials needed by teachers and learners. The program supports the development of a marketing and implementation strategy to ensure that the models of curricula and materials designed for the handicapped are widely distributed among potential consumers.

The Learning Disabilities Special program also has identifiable dissemination activities. The program disseminates information on specific, adaptable programs and their components. Information is also disseminated on available materials.

For Further Information

Write Bureau of Education for the Handicapped, U.S. Office of Education, Department of Health, Education, and Welfare, Room 2004, Regional Office Building, Seventh and D Streets, S.W., Washington, D.C. 20201.

BUREAU OF ELEMENTARY AND SECONDARY EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	40	8,760			8,800	46,441	8,471	8,056	62,968	71,768
1976	477	11,503	106		12,086	44,877	9,415	778	55,070	67,156
1977		9,400			9,400	46,125	8,400	2,925	57,450	66,850

The Bureau of Elementary and Secondary Education, formerly named the Bureau of School Systems, administers programs of financial and technical assistance to public local and state school agencies that serve elementary and secondary school-age children. The bureau assists state departments of education to identify problems, evaluate programs, and undertake comprehensive planning. The bureau also assists local schools with problems relating to desegregation and administers funds to help support public education in areas where federal activity has increased school enrollment or removed property from local tax rolls.

Table 10-8 lists the bureau programs that support social knowledge production and application activities. The Follow Through program is the dominant knowledge production and application activity of the agency, as it accounted for nearly 85 percent of the bureau's total knowledge production and application obligations in fiscal 1977. The program is designed to assist in the overall development of children from low-income families who are enrolled in kindergarten through third grade and to amplify the educational gains made by children in Head Start and other similar preschool programs. While the Study Project categorized the Follow Through program as having two major components (a policy formulation and a policy implementation component), it should be noted that the entire program is viewed as "experimental" by bureau staff.

TABLE 10-8 Bureau of Elementary and Secondary Education: Programs that Support Social Knowledge Production and Application (fiscal 1977, $millions)

Program	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity
Follow Through	57.0	Policy implementation demonstrations
Emergency School Aid	9.8	Development of materials
Innovation and Support	0[a]	Dissemination
Drug Abuse Education	0[b]	Policy implementation demonstrations
Environmental Education	0[b]	Development of materials
TOTAL	66.8	

[a] Program was transferred to the Office of the Commissioner in fiscal 1976.

[b] No funds were requested in the President's fiscal 1977 budget for these two programs. In fiscal 1976, Drug Abuse Education had $0.3 million and the Environmental Education program had $1.5 million in knowledge production and application obligations.

Policy Formulation Demonstrations

The Follow Through program has two major components. The first is concerned with testing and evaluating innovative educational approaches. The second is concerned with providing comprehensive services and special activities to Follow Through students. The first activity was judged to be a policy formulation activity, while the second was categorized as a policy implementation activity.

In fiscal 1977, $8 million was obligated for the design, testing, and analysis of alternative educational approaches. A major element in the Follow Through program is the concept of planned variations. The program currently supports 20 sponsors—universities, educational laboratories, and private nonprofit educational delivery firms—who have each developed and implemented an innovative educational model in different sites. Sponsor models are based on the results of research in child development and education. Some models grow out of research by the sponsor, while other models are based on widely recognized theories such as Piagetian theories of cognitive development or principles of behavior modification. As expected, some models are more effective than others. Based on evaluation studies to date, the following has been learned about different models:

- Model D, which is similar to traditional classrooms but provides very intensive work on basic skills, has shown positive results in reading and mathematics;
- Model E, which emphasizes behavior modification in addition to being highly structured in teacher methods, is showing positive results in mathematics but has shown neutral or negative results in reading;
- Model G, which stresses the role of parents in homes as a prerequisite for school performance, has shown mixed results with some sites showing positive results and others showing negative results; and
- Model J, a bilingual model that stresses language skills, has also produced mixed results.

The Emergency School Aid program also supports policy formulation demonstrations. The program is designed to eliminate or prevent minority group isolation and to improve the quality of education for all children. The program supports a broad range of activities to accelerate desegregation by supplying additional funds to local education agencies. In fiscal 1977, the program obligated over $1 million in policy formulation demonstrations by supporting a Special Student Concerns program. The project supported demonstrations to study the causes and find methods or programs to reduce the incidence of student suspension and expulsion as a result of the school desegregation process.

Policy Implementation Demonstrations

The second component of the Follow Through program is concerned with the delivery of comprehensive services (medical and dental services, nutritious meals, and psychological and social services) to Follow Through students. More than $46 million was obligated on this component in fiscal 1977. These activities have been categorized as policy implementation demonstrations because a major goal of the program is to have local school districts assume more of the responsibility for these programs. The goal is thus to promote the provision of comprehensive social services to children by demonstrating their worth in a community setting. In some localities, school districts have already started to assume responsibility for providing social and health services once paid for by the Follow Through program. Bureau staff are now seeking additional state and local funding of Follow Through service components.

The Drug Abuse Education program supports a small number of policy implementation demonstrations designed to foster drug and alcohol abuse education programs in schools and communities. Projects have involved counseling students, working with families, providing alternative ways to meet needs now met by drug use, and developing programs to help students cope with problems that may have led to drug use.

Development of Materials

The Emergency School Aid program is the major developer of materials in the bureau. While the Follow Through program also supports the development of curricula, those funds have been included as part of the policy formulation demonstrations. The Emergency School Aid program supports the development of educational television programs, which will improve the effectiveness of desegregated education on a national basis. Educational television programs have been designed to increase mutual understanding among racial and ethnic groups, while improving the reading and writing skills of viewers. An example of such a program is "Villa Alegre," which is a Spanish–English series intended for both Spanish and non-Spanish children.

The Environmental Education program supported the development of curriculum materials geared to providing school children with a better understanding of the relationship of people to their natural and created surroundings, including the relationship of population, pollution, resource allocation and depletion, and transportation to the environment.

Dissemination

The decrease in dissemination funds between fiscal 1975 and fiscal 1976 is accounted for by the transfer of the Innovation and Support (now called Packaging and Dissemination) program from the bureau to the Office of the Commissioner. The earlier program was designed to enable state and local education agencies to learn about and tailor innovative educational approaches to their own needs and circumstances. Like the current Packaging and Dissemination program, the program consisted of a national diffusion network and the development of "project information packages." (A more detailed discussion of this program is found under the Office of the Commissioner.)

The Follow Through program has a dissemination component. The program awards grants and contracts for technical assistance and dissemination concerning existing Follow Through programs. In fiscal 1977, the Follow Through program increased its dissemination efforts to provide information to state and local school districts regarding those models that now have strong evidence of effectiveness.

For Further Information

For further information on the Follow Through program, see *Planned Variation in Education—Should We Give Up or Try Harder?*, Rivlin, Alice M., and Timpane, Michael F., eds., Brookings Institute, Washington, D.C., 1975; *Follow Through, A Story of Educational Change*, Nero and Associates, Inc., Portland, Ore., 1976. (Copies can be obtained from Nero & Associates at 208 S.W. Stark Street, Portland, Ore. 97204.)

For additional information on Follow Through or other bureau programs, write Bureau of Elementary and Secondary Education, U.S. Office of Education, Department of Health, Education, and Welfare, Room 4111, Federal Office Building 6, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

BUREAU OF HIGHER AND CONTINUING EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	899	825			1,724		2,297	449	2,746	4,470
1976	1,377	800			2,177		2,670	320	2,990	5,167
1977	530				530		1,660		1,660	2,190

The Bureau of Higher and Continuing Education, formerly named the Bureau of Postsecondary Education, formulates policy for, directs, and coordinates activities of OE that deal with assistance programs for postsecondary educational institutions. The bureau also assists in the improvement and expansion of American educational resources for international studies and services. In addition, the bureau is responsible for programs designed to strengthen the community service and continuing education programs of colleges and universities as well as the academic quality of developing colleges and universities.

Table 10-9 lists the programs in the bureau that support social knowledge production and application activities. Four of the programs listed in the table contain estimates of zero for fiscal 1977 because the President's fiscal 1977 budget requested either termination or a substantial reduction in the program, which eliminated its knowledge production and application activities.

Research

The Language Training and Area Studies programs have a clear research component. Research is supported, through surveys and studies, to produce new knowledge about other nations and cultures, particularly those of the non-Western world. In addition to supporting research on area studies, the programs also support research on the process of language learning, the methodology of foreign language teaching, and baseline studies on international and intercultural education.

In fiscal 1975 and fiscal 1976, two other bureau programs supported research. The Cooperative Education program supported research on methods of improving, developing, and promoting the uses of coopera-

TABLE 10-9 Bureau of Higher and Continuing Education: Programs that Support Social Knowledge Production and Application ($millions)

Program	Total Social Knowledge Production and Application Obligations (fiscal 1976)	Total Requested Social Knowledge Production and Application Obligations (fiscal 1977)	Predominant Social Knowledge Production and Application Activity
Language Training and Area Studies Programs[a]	3.1	2.2	Development of materials
Library Research and Demonstration Program	1.0	0	Policy formulation demonstrations
Special Community Services and Continuing Education Projects	0.6	0	Development of materials
Ethnic Heritage Studies Program	0.4	0	Development of materials
Cooperative Education Program	0.1	0	Research
TOTAL	5.2	2.2	

[a] Includes National Defense Education Support, the Fulbright-Hays Program, and the Special Foreign Current Program.

tive education programs in higher education. Specific projects included: employer experience with cooperative education, an analysis of costs and benefits, the impact of community college cooperative education programs on its graduates, a study of the effects of work experience on minority students, and a longitudinal study of cooperative education outcomes. The Library Research and Demonstration program also had a small research program focused on ways to improve institutional cooperation and the planning of improved library services.

Policy Formulation Demonstrations

The Library Research and Demonstration program also supported a series of policy formulation demonstration projects. Priority was given to demonstrating projects directed toward providing better library access to economically or educationally disadvantaged persons. One demonstration, for example, focused on developing a model program for delivering library services to rural counties. Another demonstration focused on reaching preschool children by home visits in an early childhood library project.

The Special Community Service and Continuing Education program supported a limited number of demonstration projects in fiscal 1975 and fiscal 1976. These demonstrations were aimed at solving community and regional problems through the use of continuing education programs. Innovative projects were supported dealing with obtaining more effective participation in community affairs.

Development of Materials

The Language Training and Area Studies program is the largest funder of the development of materials. A major activity of the program is to develop improved curricula and effective instructional materials in foreign languages, area studies, and world affairs. The program has developed instructional materials in 50 foreign languages. Special attention is given to the development of materials on languages not commonly taught in the United States.

In fiscal 1975 and fiscal 1976, three other programs also supported the development of materials. The Special Community Service and Continuing Education program supported the development of materials for use in continuing education programs focused on national and regional problems. The Library Research and Demonstration program supported the improvement of education and training materials for librarians. The Ethnic Heritage Studies program supported the development of curriculum materials for use in educational institutions. These materials focused on the contributions of ethnic groups to such aspects of American heritage as history, geography, economy, literature, arts, music, and drama.

Dissemination

The Ethnic Heritage Studies program had an active program of disseminating materials. The Special Community Service and Continuing Education program and the Library Research and Demonstration program both have small programs of technical assistance, a dissemination activity.

For Further Information

Write Bureau of Higher and Continuing Education, U.S. Office of Education, Department of Health, Education, and Welfare, Room 4682, Regional Office Building, Seventh and D Streets, S.W., Washington, D.C. 20201.

BUREAU OF INDIAN EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975		1,700			1,700		1,000	600	1,600	3,300
1976		4,700			4,700		1,000	600	1,600	6,300
1977		4,100			4,100		1,260	600	1,860	5,960

The Bureau of Indian Education, formerly named the Office of Indian Education, administers a variety of programs to meet the special educational needs of Indians and to improve the educational opportunities for Indian adults and children. The bureau provides federal grants to public school systems and to Indian community schools on or near reservations to plan, develop, and carry out elementary and secondary school programs to meet the needs of Indians.

Table 10-10 presents the two programs administered by the Office of Indian Education that contain social knowledge production and application activities.

TABLE 10-10 Bureau of Indian Education: Programs that Support Social Knowledge Production and Application (fiscal 1977, $millions)

Program	Total Estimated Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activities
Special Projects for Indian Children	5.2	Policy formulation demonstrations
Special Projects for Indian Adults	0.7	Policy formulation demonstrations
TOTAL	5.9	

Policy Formulation Demonstrations

The Special Projects for Indian Children program supports policy formulation demonstrations to develop ways to aid Indian children. Some demonstrations develop and test improvements in the delivery of comprehensive educational models, which address the academic, social, cultural, emotional, and physical needs of Indian children. Other innovative demonstration projects are directed at bilingual and bicultural programs; projects assessing the special health, social, and psychological problems of Indian children; and projects that coordinate the operation of other federally assisted programs that may be used to address the needs of Indian children.

The Special Projects for Indian Adults program supports policy formulation demonstrations to develop new approaches and techniques for the delivery of educational services to Indian adults. The projects support educational models and teaching strategies designed to achieve literacy and to increase the number of high school equivalency graduates among Indian adults. These projects stress English as a second language and have developed courses of particular relevance to Indian communities, such as consumer, legal, and cultural information.

Development of Materials

The Special Projects for Indian Children program also supports the development of educational materials for Indian children. One curriculum project, aimed at Indians residing in urban areas, depicted the transitional problems of Indians migrating to cities and their new role in urban community life. Other curricula have been developed for preschool children.

Dissemination

The Special Projects for Indian Children program disseminates information and provides technical assistance to state and local projects that address the educational needs of Indian children. Examples of the type of information disseminated include instances of successful, innovative practices that have been funded by the Bureau of Indian Education. The aim of dissemination activities is to ensure widespread use of educational methods and techniques throughout the Indian community for the purpose of improving their education.

For Further Information

Write Bureau of Indian Education, U.S. Office of Education, Department of Health, Education, and Welfare, Room 4047, Federal Office Building 6, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

BUREAU OF OCCUPATIONAL AND ADULT EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5,038	24,944	2.555		32.537	2,311	3,760	478	6,549	39,086
1976	4,700	17.764	2,550		25,014	8,900	4,150	450	13,500	38,514
1977	4,700	12,840	2,550		20,090	8,900	4,150	450	13,500	33,590

The Bureau of Occupational and Adult Education administers a program of grants to states for vocational and technical education, vocational counseling and guidance, and the construction and operation of area vocational and technical schools. The bureau provides financial and technical support for secondary and adult vocational education and for adult education programs that teach basic skills to school dropouts and the underskilled.

In addition to these activities, the bureau supports a variety of knowledge production and application activities in vocational education. The bureau's social knowledge production and application programs are listed in Table 10-11.

Research

Under the Part C authorization of the 1968 Vocational Education Amendments, the bureau supports research designed to improve vocational education. Research is funded on the following areas.

ADULT VOCATIONAL EDUCATION This research area reflects the view that adults who are underemployed, about to become employed, or unemployed should be a prime target population for vocational education. Research focuses on access to vocational education by employees (research on ways vocational education can assist in the development of employees in cooperation with business, industry, and labor); competence-based adult vocational education; and vocational education in entrepreneurship (research on ways to expand vocational educational programs to provide adult entrepreneurial competencies that facilitate self-employment).

TABLE 10-11 Bureau of Occupational and Adult Education: Programs that Support Social Knowledge Production and Application (fiscal 1977, $millions)

Program	Estimated Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity
Vocational Research, Demonstration, and Curriculum Development (Part C)[a]	16.5	Policy formulation demonstrations/research
Vocational Education Exemplary Demonstrations (Part D)[a]	10.8	Policy implementation demonstrations
Adult Education Exemplary Projects	5.4	Policy formulation demonstrations
Vocational Education Curriculum Development and Dissemination (Part I)[a]	1.0	Development of materials
Urban/Rural School Development	0.0[b]	Policy formulation demonstrations
TOTAL	33.6	

[a] Authorized by the Vocational Education Amendments of 1968.

[b] Fiscal 1976 obligations were $4.9; program ended by fiscal 1977.

SPECIAL-NEEDS POPULATIONS Research is supported on the following special populations that have unique needs with respect to vocational education: populations that require bilingual vocational education; populations in correctional institutions; migrant populations; and handicapped populations.

These represent new research topics for fiscal 1976. Previous topics of research have [illegible]: state vocational education administration; administration of vocational education at the local level; and comprehensive systems of guidance, counseling, placement, and other student services.

Policy Formulation Demonstrations

Policy formulation demonstrations are funded under both the Part C and Part D authorizations of the 1968 act. Both programs contain two types of demonstrations: those administered by the federal government and those administered by state governments. Many of the state-administered demonstrations were found to be "local development" activities and were not included in the survey totals.

Part C demonstrations have supported projects to develop and evaluate programs in postsecondary vocational education. There has been a great increase in the past decade in vocational education at the postsecondary levels in programs that do not offer a bachelor of arts degree. Demonstration projects have been funded to develop and to evaluate programs that (1) service the needs of students in the inner city and rural areas; (2) reduce the dropout rate from vocational education at the postsecondary level; (3) have cooperative agreements between public, private, and proprietary postsecondary institutions and business, industry, and labor.

Part D demonstrations support exemplary projects of national significance. During the period fiscal 1975 to fiscal 1977, projects appear to have shifted from a policy formulation focus to a policy implementation focus. This accounts in large part for the decrease in obligations for policy formulation demonstrations during that period. Fiscal 1975 projects emphasized vocational guidance services and occupational preparation through cluster programs. An example is a comprehensive career guidance system in grades 7–12 in Massachusetts, which involved a career cluster exploratory program designed to provide instructional activities through which occupational and academic disciplines are integrated.

The Adult Education program also supports some policy formulation demonstrations. The overall objective of the adult education program is to assist, by providing grants to states for such programs, in eliminating illiteracy and providing opportunities for adults to continue their education at the level of secondary school completion and to secure training that would make them more employable, productive, and responsible citizens. The law authorizing the program required that a certain amount be allocated to special demonstration projects. Such projects include: developing innovative methods of teaching persons of limited English-speaking ability; furthering programs of national significance; and increasing participation by community schools.

The Urban/Rural School Development program was also classified as a policy formulation demonstration. The last year of the project was fiscal 1976, which accounts, in part, for the decrease in policy formulation demonstrations between fiscal 1975 and fiscal 1977. Grants were made to school districts to develop and test new ways to use comprehensive in-service training for both teachers and other educational personnel as a means of improving education services in schools serving a high concentration of low-income families. The basic purpose of the program was to accelerate classroom academic treatment, improve affective development, and increase the range of opportunities for students. Some projects provided intensive retraining of an entire school staff, while others offered retraining of a less intensive nature.

Policy Implementation Demonstrations

Approximately 95 percent of the bureau's policy implementation demonstrations are conducted under Part D authorization (of the 1968 Vocational Education Amendments). A limited number of policy implementation demonstrations are performed by the states under Part C authorization. The goals of the Part D exemplary projects are to: (1) create bridges between school and earning a living for young people in school, those who have left school by graduating or dropping out, and those who are in postsecondary vocational programs; (2) promote cooperation between agencies involved in education and manpower; (3) broaden occupational aspirations and opportunities, especially for youths with handicaps; and (4) provide for participation of young people enrolled in private nonprofit schools.

In fiscal 1976, there were three major program priorities for the Part D exemplary projects. The first was to demonstrate Experience Based Career Education (EBCE) programs. Such programs could either be based on the EBCE model developed by the National Institute of Education or other EBCE models. The second priority was the further development and demonstration of the instructional strategies, methods, and techniques of EBCE programs in conjunction with in-school occupational exploration and initial job preparation. The third priority was concerned with the development and demonstration of EBCE instructional strategies, methods, and techniques in conjunction with work study programs.

Development of Materials

The development of vocational educational materials is funded under Parts C, D, and I of the 1968 Vocational Education Amendments. Of the three authorities, more money has been spent under Part C than the other two. Part C funds have supported the development of individualized and modularized instructional materials. In order to meet the increasing demand for vocational education and to provide more effective instruction in a greater variety of educational settings, it has become necessary to use technology-oriented delivery systems.

Part I funds have supported the development and testing of vocational education curriculum materials, including curricula for new and changing occupational fields and vocational teacher education. In addition, the bureau supports a national network for curriculum coordination in vocational technical education.

For Further Information

See *Assessing Vocational Education Research and Development*, National Research Council, National Academy of Sciences, Washington, D.C., 1976, or write Division of Research and Demonstration, Bureau of Occupational and Adult Education, ROB 3, Room 5042, U.S. Office of Education, Seventh and D Streets, S.W., Washington, D.C. 20202.

OFFICE OF THE COMMISSIONER OF EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			309		309	12,239	5,148	2,686	20,073	20,382
1976		2,184	920		3,104	4,500	13,075	5,980	23,555	26,659
1977		1,492	820		2,312	4,500	10,650	10,965	26,115	28,427

The Office of the Commissioner manages and directs the affairs of the Office of Education. In addition to the general responsibility of managing OE, the Office of the Commissioner administers several programs: the Teacher Corps, the Bilingual Education, the Career Education, and the Right to Read programs.

Table 10-12 lists the programs in the Office of the Commissioner that fund social knowledge production and application activities. Seven of

TABLE 10-12 Office of the Commissioner: Programs that Support Social Knowledge Production and Application (fiscal 1977, $millions)

Program	Total Estimated Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity
Bilingual Education	11.3	Development of materials
Career Education[a]	7.0	Policy implementation demonstrations
Packaging and Dissemination[a]	3.9	Dissemination
Educational Television[a]	3.5	Development of materials
Right to Read (National Reading Improvement Program)	1.2	Policy formulation demonstrations/research
Women's Educational Equity[a]	0.7	Dissemination/evaluation
Consumer Education[a]	0.3	Development of materials
Metric Education[a]	0.3	Development of materials
Gifted and Talented[a]	0.2	Policy formulation demonstrations
TOTAL	28.4	

[a] Special projects.

the programs listed are "Special Project" activities. The projects were authorized by the Education Amendments of 1974 to encourage capacity building in areas that need more attention from state and local education agencies. Capacity building is accomplished by supporting: experimentation with new education and administrative methods, techniques, and practices; attempts to meet special or unique educational needs or problems; and programs that place special emphasis on national educational priorities. While "Special Projects" are administered throughout OE, they fall under the discretionary authority of the commissioner and thus have been included as activities of the Office of the Commissioner.

Policy Formulation Demonstrations

Three programs in the Office of the Commissioner support policy formulation demonstrations. The Career Education program supports projects that test and demonstrate effective methods and procedures in career education. Specific projects attempt to develop effective methods of delivering career education to special populations (such as the physically and mentally handicapped) and developing methods of infusing career education into traditional educational programs. The Right to Read program supports "special emphasis" projects that support innovation and development activities of national significance in reading. The Gifted and Talented program supports a limited number of model projects designed to meet the special needs of gifted and talented children at preschool, elementary, and secondary levels.

Program Evaluation

The following four programs have identifiable program evaluation components: Career Education, Right to Read, Women's Educational Equity, and Consumer Education. The programs fund external evaluations of the success of the program.

Policy Implementation Demonstrations

The decrease in policy formulation demonstrations between fiscal 1975 and fiscal 1977 is due to a decline in demonstrations supported by the Career Education program and the end of the policy implementation demonstration component of the Right to Read program.

The goal of the Career Education program is to stimulate state and local education agencies in their efforts to prepare students for gainful employment after graduation. Grants are made to state and local education agencies for the development of programs that demonstrate successful methods and techniques in career education. Demonstrations are funded in such settings as elementary schools, senior high schools, community colleges, and institutions of higher education.

The Right to Read program funds demonstration projects to promote a variety of innovative activities directed toward reducing illiteracy and improving reading skills. Such projects are aimed at stimulating local education and community investments by demonstrating exemplary projects. Projects provide reading literacy training to preschoolers, school children, and adults. Community-based projects were funded on a demonstration basis to increase the functional literacy of selected out-of-school youth and adult populations through the use of materials and methods based upon the interests and needs of the adult population.

Development of Materials

Several projects in the Office of the Commissioner support the development of materials. A well-known activity is the Educational Television program. The objective of the program is to improve the educational performance of children, youth, and adults by the development and production of educational television programs. The Office of Education has been especially interested in demonstrating the feasibility and educational value of nationwide programs. Grants have been given to the Children's Television Workshop (Sesame Street and Electric Company) as well as to local public television stations.

Another major program of the development of materials is Bilingual Education. Funds go to Bilingual Materials Centers to develop bilingual instructional materials for use in classrooms. The centers are now preparing curriculum materials in more languages than in previous years.

Several other programs also develop materials. The Consumer Education program supports the development of instructional materials concerning consumer education for elementary schools, secondary schools, and institutions of higher education. The Metric Education program supports the development of materials for metric education curricula. The Right to Read program also supports the development of materials related to reading skills.

Dissemination

The Bilingual Education program gives much emphasis to dissemination. In addition to Materials Development Centers, the program supports Resource Centers and Dissemination and Assessment Centers. The Resource Centers provide immediate services on effective practices and procedures to local education agencies. The Dissemination and Assessment Centers have the responsibility to assess, publish, and distribute the materials that have been developed by the Materials Development Centers. The three groups of centers enable the Office of Bilingual Education to operate a large network of centers that have an orderly and logical division of labor to get bilingual instruction materials to the classroom.

The other large dissemination program is called Packaging and Dissemination. The objective of the program is to encourage the cost-effective and rapid dissemination and replication of exemplary educational practices and products that have been developed through OE funding. The program has two components: the first, packaging, consists of the development of detailed descriptions (or "packages") about key management and instructional elements of a given educational approach. Field tests are conducted to determine when a package is sufficiently clear and comprehensive to effectively promote the replication of the approach in a new setting. The second component, dissemination, consists of the National Diffusion Network. The network funds the developers of effective, OE-approved projects to provide materials, training, and technical assistance to school districts that may want to adopt the proven project. The network also provides support to individuals to act as dissemination agents to make local education districts in their states aware of potential resources and help them identify and acquire programs to meet their specific local needs.

The Women's Educational Equity program supports dissemination activities through a national clearinghouse and training package. A major project is to collect and disseminate the growing literature and project information related to educational equity for women. The program also operates a national clearinghouse for publications, materials, and projects.

For Further Information

Write Office of the Commissioner of Education, U.S. Office of Education, Department of Health, Education, and Welfare, Room 4181, Federal Office Building 6, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

OFFICE OF PLANNING, BUDGETING, AND EVALUATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,269		12,148	64	13,481			1,236	1,236	14,717
1976	1,000		12,503		13,503			1,000	1,000	14,503
1977	1,000		10,138		11,138			3,132	3,132	14,270

The Office of Planning, Budgeting, and Evaluation (OPBE) has the primary responsibility for planning, budgeting, and evaluating Office of Education programs. The office guides and coordinates the various bureaus of OE in their planning, budgeting, and evaluation activities and in establishing their objectives. Primary emphasis is placed, however, on conducting impact studies and evaluations of major OE programs. These studies examine the overall effect of education programs nationwide as well as their delivery system and cost-effectiveness.

Research

OPBE performs a limited amount of research in-house on issues related to education policy. Issues are researched and analyzed in order to formulate future legislation and programs. These analytical studies are necessary for the planning of educational policies; they specify the kinds of information needed for the evaluation of federal programs in elementary, secondary, postsecondary, vocational, and special education.

Program Evaluation

The major purpose of the evaluation program is to provide objective information about the effectiveness of OE programs for planning and decision making by both the Congress and executive branch. Many of the studies are mandated by Congress. Program evaluation studies are designed to assess how well programs are meeting their intended objectives and to determine what works, what does not work, and why. Specific examples of evaluation studies include the following.

EVALUATION OF THE ESEA TITLE III DIFFUSION ADOPTION NETWORK This study collects and analyzes information concerning the operations of the Statewide Facilitator Program in identifying project activities that have been effective in promoting program dissemination, installation, and adoption.

COOPERATIVE EDUCATION: A NATIONAL ASSESSMENT This study, mandated by Congress, evaluates the effectiveness of cooperative education.

STUDY OF THE IMPACT OF STUDENT FINANCIAL AID PROGRAMS The purpose of the study is to determine what happens to institutions of postsecondary education and their students when they receive federal student aid.

STUDY OF FEDERAL ELIGIBILITY AND CONSUMER PROTECTION STRATEGIES This study provides reporting instruments for assessing and monitoring private and public postsecondary institutional activities in the light of the OE's Accreditation and Institutional Eligibility Staff's mandates.

ASSESSMENT OF STATE AGENCY COMPONENT OF THE RIGHT TO READ PROGRAM The objective of the study is to assess the extent to which 31 participating states have implemented the OE Right to Read state program strategy. Specifically, the study is designed to assess the status of program development and define the outcomes of the data gathering.

Dissemination

In fiscal 1975, OPBE administered the Packaging and Dissemination program, which was shifted to the Office of the Commissioner in fiscal 1976. The office prepared Project Information Packages, which were developed to provide school districts with guides, manuals, and other materials on innovative projects.

In fiscal 1976 and fiscal 1977, the office's dissemination efforts centered around the provision of technical assistance to state and local educational agencies concerning the evaluation of Title I of the Elementary and Secondary Education Act. OPBE was mandated to develop uniform procedures, criteria, techniques, and methodology that would produce comparable data on a statewide and nationwide basis. Technical assistance activities include training workshops, reference and instructional materials, and the use of personnel in 10 federally funded technical assistance centers across the nation to serve as consultants to upgrade evaluation practices in the states.

For Further Information

See *Annual Evaluation Report on Programs Administered by the U.S. Office of Education: FY77*, a publication of OPBE, or write Office of Planning, Budgeting, and Evaluation, U.S. Office of Education, Department of Health, Education, and Welfare, Room 4079, Federal Office Building 6, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

11 Department of Health, Education, and Welfare: Welfare Agencies

Welfare is the third-largest social knowledge production and application policy area in the Department of Health, Education, and Welfare. Almost 20 percent, or $136 million, of HEW's social knowledge production and application obligations in fiscal 1977 was made by welfare agencies. In contrast to the terms "health" and "education," "welfare" is a more awkward and misleading descriptor. While categorized under "welfare," the four agencies described in this section are primarily concerned with social service and income security. Due to the intertwining of health issues with social service and income security, all four of the agencies described in this section also support research and other activities in health. The placement of the Office of the Assistant Secretary for Planning and Evaluation (ASPE) in the welfare section was made because poverty and income security issues account for the largest portion of ASPE's obligations. ASPE, however, is a crosscutting agency with activities spanning the entire range of HEW programs. ASPE supports activities in the health and education policy areas as well as on income security and social services. While their location is imperfect, the following agencies are discussed under the heading "welfare":

The Assistant Secretary for Planning and Evaluation is a policy office that supports research and evaluation activities on issues of concern to the secretary of HEW.

The Office of Human Development Services supports research and related activities on certain groups of "vulnerable" Americans with special needs: children and youth, the aged, the physically and mentally handicapped, the developmentally disabled, and Native Americans.

The Social and Rehabilitation Service administers the federal and state welfare programs of case assistance for families with dependent children, medical assistance, and social services.[1]

The Social Security Administration administers the Social Security program, Medicare, and the Supplemental Security Income Program.

These agencies and their components are listed in Table 11-1.

Table 11-1 demonstrates the diversity of HEW's "welfare" agencies. While the four agencies are predominantly operating agencies, their goals and audiences are mixed. ASPE is primarily concerned with the

TABLE 11-1 Welfare Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Office of Human Development Services	65.2	Research	Operating agency	Mixed
Assistant Secretary for Planning and Evaluation	34.5	Policy formulation demonstrations	Policy-making office	Improvement of federal policies
Social Security Administration	27.7	Research	Operating agency	Improvement of federal programs
Social and Rehabilitation Service[b]	9.4	Mixed	Operating agency	Knowledge for third parties
TOTAL	136.9			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

[b] The Social and Rehabilitation Service was abolished in March 1977.

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[1] The Social and Rehabilitation Service (SRS) was abolished in March 1977. The reorganization of HEW and SRS is discussed in the SRS section.

improvement of federal policy. The Social Security Administration is concerned with the improvement of the federal program of social security. The Social and Rehabilitation Service and the Office of Human Development Services are primarily concerned with providing knowledge for third parties—for example, improving the delivery of social services at the state and local level.

ASSISTANT SECRETARY FOR PLANNING AND EVALUATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	7,274	19,940	2,588		29,802		41	161	202	30,004
1976	11,086	17,889	5,075		34,050					34,050
1977	10,975	18,200	5,375		34,550					34,550

The Office of the Assistant Secretary for Planning and Evaluation (ASPE) serves as the principal adviser to the secretary of HEW on economic, social, and program analysis matters. A major responsibility of ASPE has been the development of short- and long-range policy objectives and program evaluations to assist in the analysis of alternative strategies in health, education, social services, and human development. ASPE concentrates on policy issues that cut across programmatic lines and are related to major policy initiatives of the department.

In 1973, many of the poverty-related research and demonstration programs that had been supported by the Office of Economic Opportunity (OEO) were transferred to ASPE. The research projects that were transferred to HEW, along with the HEW income maintenance experiments, have made ASPE the lead agency concerned with poverty research in the federal government.

Research and Program Evaluation

ASPE supports both research and program evaluation activities. The research activities are funded by congressional appropriation under the original OEO research authority. The program evaluation activities are funded through evaluation "set asides." These "set aside" funds are provided to ASPE from other HEW agencies. Both activities, research and evaluation, cover the same policy areas and are discussed together. ASPE's research and evaluation activities are: (1) income maintenance and employment; (2) health; (3) other human services (social service, education, etc.); and (4) basic research and statistical data.

INCOME MAINTENANCE AND EMPLOYMENT Research in this area is designed to provide a better understanding of the causes of low earnings from employment; to ascertain the impact of existing or proposed income maintenance and employment-related assistance programs; and to suggest new initiatives to increase self-sufficiency and reduce dependency among low-income families and individuals. Examples of research projects include the following.

Research on Disability Insurance Applications This project was an econometric analysis of the determinants of disability insurance applications. Analysis attempted to explain the causes of the recent growth in applications and to predict future growth.

Research on Labor Economics This project focused on race differences in earnings, female wage rates, and labor supply. The study examined the factors that affect labor force participation of special groups, including discrimination, lack of education, and irregular employment histories. Possible remedial policies were examined.

Poverty, Dependency, and Family Structure This project critically reviewed recent research on the causes of marital separation and divorce, marriage, and remarriage among women with children born out of wedlock. Research focused on the possible effects of federal welfare policy on these changes in family structure.

Other recent studies have been on policy options for welfare reform initiatives; research on social insurance programs; the use of time by the unemployed; cash equivalence of in-kind income; and unemployment, inflation, and the poor.

HEALTH Research in this area focuses on significant policy questions concerning the availability and use of health services among low-income populations. In addition to the health insurance experiment (which is discussed under policy formulation demonstrations), nonexperimental studies have been supported concerning health insurance. These nonexperimental studies have focused on establishing preliminary estimates of price and income elasticities; the demand for and costs of health services; and the responsiveness of the supply of physicians to the demand for medical services.

Other health research studies have focused on the organization and delivery of health care, a study of the effectiveness of the private health insurance markets, and studies dealing with Medicaid reimbursements and physician billing practices for low-income patients.

OTHER HUMAN SERVICES Research in this area is intended to provide information on a variety of education programs and explore ways to improve the quality and delivery of human services to the disadvantaged. Specific areas of inquiry are described below.

Education Research is designed to obtain a better understanding of the effects of existing or proposed educational programs and services to the poor; to analyze the relationship of various economic and social conditions on the availability of quality educational services; and to suggest program modifications or new initiatives that will contribute to the policy objectives of equal educational opportunity and the removal of financial barriers.

Social Services Research has been funded on the development of information bases about institutionalization of persons who suffer from chronic or mental illness. Research has examined major questions concerning the availability and appropriate use of long-term care facilities and associated social services for disabled and elderly populations. Other studies have examined single-parent families and aspects of day care policy and regulations.

BASIC RESEARCH AND STATISTICAL DATA Research in this area is directed at increasing fundamental understanding of the nature and causes of poverty and inequality. In addition, the program provides for improved collection, analysis, and use of statistical data on policy-relevant economic, social, health, and demographic phenomena. This program area supports the Institute for Research on Poverty at the University of Wisconsin, which has focused on poverty and the size distribution of income and wealth; income transfer and income maintenance systems; poverty, household decision making, and demographic behavior; segregation, discrimination, and poverty; legal, political, and administrative systems affecting the poor; and education and the poverty problem.

This program area has supported the longitudinal study of income dynamics at the University of Michigan's Institute for Social Research. Since 1968, a national probability sample consisting of 5,000 families has been interviewed yearly. The study has focused on economic variables (such as work hours, earnings, total income, and expenditures) and social variables to determine reasons for changes in family income and welfare. The study has focused on employment, income, and family structure patterns of low-income families.

ASPE has also supported two simulation models: the Transfer Income Simulation Model (TRIM) and the Dynamic Microsimulation Model (Dynasim). TRIM is the basic microsimulation model used by HEW to estimate the costs and caseloads of alternative income maintenance programs. Dynasim is a simulation of future demographic changes. In addition, a major Survey of Income and Education (SIE) has been supported through an interagency transfer to the Bureau of the Census.

Policy Formulation Demonstrations

ASPE has supported social experiments on income maintenance and health. In addition, ASPE gives demonstration grants to state and local governments. Each is discussed below (fiscal 1977 estimated obligations are in parentheses).

INCOME MAINTENANCE EXPERIMENTS ($10.5 million) These are the largest social experiments in ASPE. Two experiments are currently under way, and two experiments are completed and are now being analyzed. Each has been a carefully controlled experiment designed to yield statistically reliable results on the major behavioral and societal effects of alternative income maintenance policies, with particular emphasis on the labor supply or work incentive effects of such policies. The income maintenance experiments have provided the only hard data available on the likely response of individuals to changes in the income maintenance system. The experiments have also focused on obtaining information on ways to improve the administration of income maintenance systems. Projects currently under way are listed below.

Seattle and Denver Income Maintenance Experiments These two experiments are the most comprehensive of the income maintenance experiments. The experiments have a larger sample size than all the other experiments combined. The experiments are testing the interactive effects of income maintenance (a negative income tax plan) and participation in a manpower program. The income transfer program is supplemented by one or more manpower programs, including either job training, counseling, and vocational guidance services or day care services for working mothers.

Analysis of Gary Income Maintenance Experiment This experiment tested the effects of cash assistance programs, combined with day care and social services, on black urban families. Analysts are currently examining the behavioral and societal effects of alternative income maintenance policies, with particular emphasis on the effect of work incentives on such policies. A public use file of the Gary, Ind., experiment is being prepared so that others may make use of the longitudinal data set.

Analysis of the Rural Graduated Work Incentive Experiment This experiment was initiated by OEO as a counterpart to the now completed New Jersey (Urban) Experiment. It was designed to measure the behavioral response of rural working poor families to income-conditioned cash transfers along a number of social and economic dimensions, with emphasis on labor supply and mobility.

HEALTH CARE EXPERIMENT ($5.2 million) The experiment is a multisite (Dayton, Ohio; Seattle, Washington; Charleston, South Carolina; and Fitchburg, Massachusetts) experiment designed to measure the effect of a wide range of cost-sharing insurance plans on the demand for health care and the effects of health status over time. The experiment will consider various questions relevant to the design and operation of a national health insurance system, such as:

- estimating the responsiveness of demand for health services to insurance provisions, such as deductibles and rates;
- determining how responsiveness to insurance provisions differs with such factors as family income and types of illness;
- assessing the effect of various insurance plans on health status;
- learning how the choice of provider and quality of medical care is affected, if at all, by various insurance plans; and
- the administrative costs and difficulties involved in administering different types of income-related insurance plans.

STATE AND LOCAL CAPACITY BUILDING ($2.2 million) This program is intended to support and stimulate activities to design, develop, or test innovative systems and technologies that will improve the delivery of human resource services by state and local governments. Innovative demonstrations include new management and delivery systems technology, planning systems, evaluation methodology, and service integration techniques. Emphasis is placed on improved comprehensive planning and delivery of human resource programs. Projects include the following.

State of Wisconsin received a grant to develop and test a new service delivery design through pilot installation of four community human service center programs in different community settings. The objective is to establish a single community-based organization to coordinate a variety of now-separate social and health service programs, staffs, and agencies.

Texas Municipal League received a grant to assist city governments in planning, coordinating, and managing social service programs by assisting them in staff selection and training, needs assessment, and technical assistance.

State of Florida received a grant to provide top management staff in the state Department of Health and Rehabilitative Services with information derived from systematic "needs assessment" studies. The results of the studies are used in the planning and budgeting process.

For Further Information

See *Policy Research Digest, Fiscal 1976 and Transitional Quarter*, and *Policy Research*, a report to Congress on policy research activities, fiscal 1976—both publications of ASPE, or write Office of the Assistant Secretary for Planning and Evaluation, Department of Health, Education, and Welfare, Room 422 A, Hubert Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201.

OFFICE OF HUMAN DEVELOPMENT SERVICES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	26,117	14,567	2,643	1,240	44,567	10,409	1,970	5,883	18,262	62,829
1976	30,494	15,838	6,561	2,420	55,313	11,804	1,966	6,866	20,636	75,949
1977	30,746	9,192	8,508	1,900	50,346	4,180	1,368	9,297	14,845	65,191

The Office of Human Development (OHD) was established in 1973 to reach certain groups of "vulnerable" Americans with special needs: children and young people, the aged, the physically and mentally handicapped, the developmentally disabled, Native Americans, and people living in rural areas. Programs serving these groups, formerly scattered throughout HEW, were placed in OHD.

In July 1977, OHD was reorganized and renamed the Office of Human Development Services (OHDS). The reorganization consolidated eighteen program offices and six staff offices into five major program units and four staff offices. The consolidation was designed to bring about more efficient and effective operations and more responsive delivery of services.

OHD was the ninth-largest agency funder of social knowledge production and application in the federal government during fiscal 1977. Table 11-2 lists the offices in OHD that fund knowledge production and application activities. As can be seen, the Office of Child Development is the largest OHD funder of social knowledge production and application, supporting nearly 60 percent of the agency total. While OCD is classified as having the improvement of federal programs as its goal,

TABLE 11-2 Office of Human Development Services Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency after Reorganization (Components prior to Consolidation in Parentheses)	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Administration for Handicapped Individuals	14.5	Research	Operating agency	Knowledge for third parties
(Rehabilitation Services Administration)	11.7			
(Developmental Disabilities Office)	2.8			
Administration for Children, Youth and Families	39.5	Research	Operating agency	Improvement of federal programs
(Office of Child Development)	38.3			
(Office of Youth Development)	1.1			
Administration for Native Americans (formerly the Office of Native American Programs)	1.0	Research	Operating agency	Knowledge for third parties
Administration on Aging	10.2	Research	Operating agency	Knowledge for third parties
Administration for Public Services[b]				
TOTAL	65.2			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

[b] Not surveyed

four of the other five offices are classified as having knowledge for third parties as their goals.[2] These four, and parts of OCD, are primarily concerned with assisting states and localities who have the primary responsibility for administering social services to special population groups. Again, the "third-party" nature of social knowledge production and application is clearly seen in the Office of Human Development.

For Further Information

Write Office of Human Development Services, Department of Health, Education, and Welfare, Room 309, Hubert Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201.

ADMINISTRATION ON AGING

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	4,000	4,700	350		9,050	5,500			5,500	14,550
1976	5,500	4,774	2,200		12,474	6,726			6,726	19,200
1977	6,500	500	3,200		10,200					10,200

The Administration on Aging (AOA) was established in 1965 to provide a focal point in the federal government for addressing the concerns and needs of older persons and coordinating federal programs and policies that affect them. AOA is responsible for administering three grant programs:

- ○ support to state and area agencies for establishing comprehensive coordinated service systems for older persons at the community level;
- ○ a national nutrition program, designed to provide low-cost, nutritious meals to low-income persons aged 60 and over; and
- ○ a research, demonstration, and manpower program that seeks to identify effective methods of helping older persons.

AOA was not affected by the July 1977 OHDS reorganization.

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[2] OCD was a difficult agency to categorize. Because it operates several programs, its primary goal was classified as "improving federal programs" even though many of its knowledge production and application activities are aimed at providing knowledge for third parties in the social service community.

Research

The agency's research program is focused around the following four areas.

AGING PROCESS (EXCLUSIVE OF BIOLOGICAL PROCESSES) This program area attempts to identify the changes and conditions experienced by the elderly that are associated with the social and psychological process of aging. It is geared to creating knowledge to enable service agencies to be responsive to the problems of old age.

DEMOGRAPHIC DESCRIPTIONS OF THE OLDER AMERICAN POPULATION This program area is devoted to the identification, description, and enumeration of the current elderly population and subpopulations. This area also makes projections of population size, mobility, and demographic and distribution characteristics. Knowledge about the attitudes and behavior of older persons is also sought.

SOCIAL AND ENVIRONMENTAL CONDITIONS AFFECTING THE ELDERLY This program area attempts to identify, assess, and interpret those social, economic, and environmental conditions that affect the elderly, particularly the low-income and minority elderly. Specific studies focus on national policies that create problems for the elderly; economic and social forces that enhance or diminish their social or economic capital; and the responses of the elderly to social and environmental conditions that inhibit their freedom and independence.

INTERVENTION MECHANISMS (SUCH AS SERVICE DELIVERY) This program area attempts to identify and assess those activities, policies, or programs designed to improve the conditions of the elderly. These studies are geared to providing the understanding necessary for the development, organization, and delivery of social services to them.

Demonstrations

Prior to fiscal 1977, AOA funded a demonstration program entitled "Model Projects on Aging." (No funds were requested for this program in fiscal 1977.) Both policy formulation demonstrations and policy implementation demonstrations were funded; while these demonstrations were categorized separately to obtain the dollar figures presented above, they are discussed jointly. The Model Projects program sought to test and demonstrate how new programs, systems, or approaches could be used effectively to assist the elderly. Projects that showed promise for aiding this population group were supported on the following four topics.

HOUSING Projects were supported to meet the special housing needs of older persons, such as independent living arrangements through renovation or other innovations.

CONTINUING EDUCATION Projects were funded that provided continuing education for older persons through innovative programs.

RETIREMENT EDUCATION AND SERVICES These projects provided education and information on retirement as well as other relevant services.

NEEDS OF THE PHYSICALLY AND MENTALLY IMPAIRED These projects provided for better services in meeting the particular needs of physically and mentally impaired older persons.

Program Evaluation

AOA has an office of planning and evaluation that supports program evaluations of various AOA activities. A major evaluation examined the agency's nutrition program, attempting to measure the effect of the program in terms of the health status, nutritional status, isolation, life satisfaction, longevity, and institutionalization of participants. Another evaluation examined the area planning and service programs funded by AOA by measuring changes in those organizations in their delivery of services to older persons. Another evaluation studied the outreach capacity of the nutrition program to serve those most in need.

For Further Information

Write Administration on Aging, Department of Health, Education, and Welfare, Room 4670, HEW North, 330 Independence Avenue, S.W., Washington, D.C. 20201.

ADMINISTRATION FOR CHILDREN, YOUTH AND FAMILIES

The July 1977 reorganization of OHD created the Administration for Children, Youth and Families (ACYF). The new office consolidated several programs for children and youth administered by OHD. The new administration is responsible for the development of a broader, more comprehensive focus for children and youth. The consolidation of programs also provides an increased focus for supporting the family as the primary resource in meeting the needs of children and youth.

TABLE 11-3 Administration for Children, Youth and Families (fiscal 1977, $millions)

Agency	Social Knowledge Production and Application Obligations
Office of Child Development	38.3
Office of Youth Development	1.0
TOTAL	39.4

Numbers may not total due to rounding.

Table 11-3 presents the major agencies consolidated into ACYF and their fiscal 1977 social knowledge production and application obligations.

For Further Information

For a description of R&D funded by other government agencies pertaining to children and adolescents, see *Toward Interagency Coordination, FY '77 Federal Research and Development Activities Pertaining to Adolescence,* Fifth Annual Report of the Interagency Panel for Research and Development on Adolescence, and *Toward Interagency Coordination, FY '77 Federal Research and Development Activities Pertaining to Early Childhood,* Seventh Annual Report of the Interagency Panel on Early Childhood Research and Development; both volumes are compiled and published by the Social Research Group of George Washington University, 2401 Virginia Avenue, N.W., Suite 400, Washington, D.C. 20037.

To obtain other information on ACYF, write Administration for Children, Youth and Families, Office of Human Development Services, Department of Health, Education, and Welfare, 5030 Donohoe Building, 400 Sixth Street, S.W., Washington, D.C. 20201.

Office of Child Development

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	14,501	7,546	1,399	1,240	24,686	4,610	1,158	5,113	10,881	35,567
1976	15,485	7,833	2,871	2,420	28,609	4,784	1,394	5,963	12,141	40,750
1977	14,101	6,682	2,697	1,900	25,380	4,080	1,020	7,857	12,957	38,337

The Office of Child Development (OCD), which is now consolidated in the Administration for Children, Youth and Families, is responsible for serving all children, from conception through early adolescence, with emphasis on the formative first five years of life and on children who are "at risk" because of special problems. The office carries out its mission by fulfilling the following functions:

- operating federally funded programs for children, the most notable being Project Head Start;
- developing innovative programs for children and their families;
- serving as a coordinating point for all federal programs for children and their families;
- administering the National Center for Child Abuse and Neglect;
- acting as an advocate for the children of the nation, by bringing their needs to the attention of the government and the American people; and
- developing national policies and programs that significantly affect the well-being of children and families.

In addition to these activities, the office serves as the principal adviser to the secretary of HEW and the assistant secretary for human development services on all matters pertaining to the care and development of children.

Another major activity of OCD is funding research and demonstration projects concerning children. Each of OCD's major programs—the Child Welfare Research and Demonstration Program, Project Head Start, and the National Center on Child Abuse and Neglect—has its own research authority. Each of these three programs and their knowledge production and application activities will be discussed separately.

CHILD WELFARE RESEARCH AND DEMONSTRATION PROGRAM This program is focused on day care; child welfare studies, emphasizing children at risk; and child and family development.

Day Care Research and demonstration projects are aimed at identifying alternative programs that result in maximum development and growth of children receiving day care and developing and perfecting administrative support systems for the delivery of day care services to ensure that such services are provided in the most cost-effective way. Examples of day care research include:

- *Day Care Cost-Effectiveness Study*, which was designed to determine relationships between variation in day care center cost levels and effect on child and parent;

○ *Parent Preference Survey,* which was designed to identify the nature and extent of day care needed for representative communities; and

○ *Effects of Day Care on Psychological Development,* which compares the cognitive, social, and affective growth of children participating in an experimental day care enrichment program with the growth of matched groups of children who are being reared at home.

The goal of day care demonstration projects is to develop alternative delivery systems and innovative programs. An example is the bilingual/bicultural early childhood development project, which is demonstrating comprehensive early child development services in Spanish and English. The services provide an environment of the primary language and culture of the Spanish child, while acquainting him or her with the second language and culture.

Child Welfare Studies This program is aimed at the population of children who are at risk as a result of being separated from their families or enduring long separation from families and family life. Research projects are funded in the following areas:

○ *Adoption and Foster Care studies,* which include an examination of independent adoptions and informal adoptions among black families.

○ *Deinstitutionalization projects,* which include a study of the community resources available for the deinstitutionalized child and a study to assess the effect of deinstitutionalization on children.

○ *Research on Institutions* includes an analysis of the effect of institutional placement on the development of adolescents. Another project analyzed residential treatment centers for children.

Demonstration projects are also supported in this area. Several projects were funded to test programs concerned with adoptions of handicapped children. These projects coordinated community resources and efforts in recruiting and preparing potential adoptive families, selecting and placing handicapped children with these families, and assisting the establishment of relationships with community groups.

Child Development and Family Life This program area focuses on the interrelationships among important elements of the child-rearing environment: the child and the family, and the larger societal and institutional contexts. Research and demonstration projects are focused on:

○ describing and analyzing the ways in which families deal with situations such as divorce, remarriage, employment of the mother or family, and unemployment;

○ how families interact with or are treated by social institutions for child development; and

○ how families and institutions work together to ensure that the needs of children are met over the years so that development is not impaired.

The Child Development and Family Life program area supports research in the areas described below:

○ *Family Interface with Schools and Other Institutions,* which includes a study of family style and interactions with external institutions. Interactions and involvement among parent, professional, and child are also studied.

○ *Family Styles,* including studies on child-rearing practices of young white mothers; an empirical investigation of the effect of parent imprisonment on the socialization of black children; consequences of divorce to children; and cognitive development of early childhood.

○ *Television,* including a study of television's content and children's social attitudes; children's critical evaluation of television content; and parental supervision of children's social learning from television.

○ *Social Ecology,* including a study of the modification of children's racial attitudes; racial misidentification and attitudes about self among preschool children; the development of parental attachments; the effect of family structural variables on the social mobility of black families; and an empirical study of black families.

Demonstrations are also funded. A well-known demonstration is the Parent and Child Development Centers. At these centers, mothers of infants are trained to be "developmental agents" for their children. The purpose of the demonstration is to show that training mothers may be an important alternative to day care and preschool early childhood intervention strategies. The centers are also used as laboratories to learn more about infant development.

The development of materials is also supported in this area. As part of the Education for Parenthood program, a curriculum was developed to help teenagers prepare for parenthood through learning about children. This curriculum was intended to be used in conjunction with Education for Parenthood work study projects that would give students actual experience with young children.

PROJECT HEAD START Project Head Start is a comprehensive preschool program aimed at providing developmental services to disadvantaged children and their families. Although Head Start itself was once a demonstration, it has moved out of the demonstration category and has become a large operating program. Today, Head Start supports demonstration and evaluation activities geared to strengthening it as a national program.

Head Start supports a large program of evaluation designed to strengthen the Head Start Program. Head Start evaluations assess both the general effects and the efficiency of its programs and services. The Home Start program was evaluated during fiscal 1975.

Head Start demonstration programs have two goals: (1) finding ways to improve local Head Start performance in the areas of health and nutrition services, parent involvement, services to handicapped children, and basic program management; and (2) expanding the range of options available to local communities for designing and organizing the delivery of child development services. Examples of such demonstrations are listed below.

Developing New Approaches for Providing Head Start Services to Handicapped Children This demonstration program is part of an overall Head Start improvement and innovation effort emphasizing individualized approaches to meeting the unique needs and the potential of each child in the program. Projects selected to participate in the program will develop and test alternative approaches to more effective delivery of services to preschool handicapped children and their families.

Home Start Experimental Program Home Start is a demonstration for disadvantaged preschool children and their families. It is a home-based program that demonstrates ways of providing Head Start-type comprehensive services to preschool-age children in their own homes. Home Start builds upon existing family strengths and assists parents in their role as the most important developmental influence in their children's lives.

Child and Family Resource Programs (CFRP) This program broadens the Head Start focus from the preschool-age child to the entire family. The CFRP approach is to use a Head Start program as a base for developing a community-wide delivery system linking a variety of programs and services to children and their families. The goal of the demonstration is adaptation of the program by local Head Start programs and other state and local agencies in many different communities. The CFRP program is thus a good example of a policy implementation demonstration.

CHILD ABUSE AND NEGLECT This is the largest program area in OCD, part of a larger effort to improve the identification, treatment, and prevention of child abuse and neglect. OCD also serves as the lead federal agency in the Interdepartmental Committee on Child Abuse and Neglect. The program is carried out by the National Center on Child Abuse and Neglect. The center serves as a catalyst for identification and treatment programs of child abuse and neglect and supports a variety of activities.

The center's research program is focused primarily on the causes of abuse and neglect in the context of the family. Research examines the legal bases for child protection. Examples of research include:

- abuse and neglect among low-income families: a comparative study of adequate and inadequate child care;
- identification and definition of factors causally associated with child abuse and neglect;
- an exploratory study defining and classifying cases of child abuse; and
- a controlled study of social, familial, individual, and interaction factors in child abuse.

Research is also examining the relationship, if any, between drug and alcohol abuse and child abuse. Research is being supported to develop methods to assess the effectiveness of treatment services for child abuse and neglect.

A large part of the child abuse and neglect program is devoted to funding demonstrations to test various methods of treating child abuse cases and combating child abuse. Thirty-five demonstration projects are now being funded to develop and improve services concerning child abuse. Twelve demonstration centers are testing a variety of direct service programs for the identification, prevention, and treatment of child abuse and neglect. These services include direct investigation of cases, provision of treatment, and referral and follow-up services. Centers also conduct public education and assist local agencies in establishing or improving child abuse programs. Eight demonstration projects are providing direct services concerning child abuse to populations with special obstacles to service delivery—such as military families, Native Americans, and isolated rural children and their families.

Dissemination is another major aspect of the OCD's child abuse program. The agency supports a National Clearinghouse for Child Neglect and Abuse, which systematically collects data and other information pertaining to the nature, incidence, and characteristics of child neglect and abuse. Periodic reports and analysis of data are published by the clearinghouse for public and professional use in the planning of child abuse research and services.

OCD also supports 16 resource centers across the nation. These centers provide a range of supportive activities to providers of community services in an attempt to assist them in using resources more effectively. Technical assistance, a major method for dissemination, is provided to state and local agencies to help them establish or improve child abuse programs.

For Further Information

See *Research, Demonstration and Evaluation Studies,* and *Planning and Implementing Child Abuse and Neglect Service Programs: The Experience of Eleven Demonstration Projects,* which are both publications of OCD, or write Administration for Children, Youth and Families, Research and Evaluation Division, Department of Health, Education, and Welfare, Room 5044, Donohoe Building, 400 Sixth Street, S.W., Washington, D.C. 20201.

Office of Youth Development

Social Knowledge Production and Application Obligaticns ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	434				434		469		469	903
1976	750				750					750
1977	750		350		1,100					1,100

The mission of the Office of Youth Development (OYD), which is now consolidated in the Administration for Children, Youth and Families, is to assist in the removal of barriers to the development of young people. To carry out that mission, the office works directly with youth-serving organizations and youth groups. The office serves as the federal government's agent for youth activities, one of which in recent years has been the development and implementation of programs to help runaway youths and their families. The office administers grants to states, localities, and nonprofit institutions to provide services to runaway youths.

Research

Research is supported in several areas. Secondary analyses of available data and research studies are performed to identify emerging issues and problems facing young people. This analysis assists the office in determining both short- and long-term priorities. OYD also supports research that identifies and describes the major youth programs supported by the private sector and analyzes both effective methods of achieving youth participation and the barriers to it. In addition, research is now supported to provide the knowledge needed to strengthen state and local service delivery to runaway youths. This area includes the study of aftercare treatment of runaway youths and alternative care for those unable to return home.

Program Evaluation

OYD supported an evaluation in fiscal 1977 to assess the effectiveness of various service programs for runaway youths.

For Further Information

Write Administration for Children, Youth and Families, Department of Health, Education, and Welfare, Room 5030, Donohoe Building, 400 Sixth Street, S.W., Washington, D.C. 20201.

ADMINISTRATION FOR HANDICAPPED INDIVIDUALS

In the July 1977 reorganization of the Office of Human Development, the Administration for Handicapped Individuals was created. The new administration will be responsible for all OHDS activities targeted toward handicapped persons. The goal of the reorganization is to reduce fragmentation in order to focus on the needs of handicapped persons. Table 11-4 presents the major agencies consolidated within the new

TABLE 11-4 Administration for Handicapped Individuals (fiscal 1977, $millions)

Agency	Social Knowledge Production and Application Obligations
Re[illegible]tation Services Administration	11.8
[illegible]ment Disabilities Office	2.7
TOTAL	14.5

administration and their fiscal 1977 social knowledge production and application obligations.

For Further Information

Write Administration for Handicapped Individuals, Office of Human Development Services, Department of Health, Education, and Welfare, Room 30006, HEW South, Washington, D.C. 20201.

Rehabilitation Services Administration

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	6,240	2,017	818		9,075	299	343	770	1,412	10,487
1976	6,784	2,428	811		10,023	294	472	903	1,669	11,692
1977	6,715	1,560	1,725		10,000	100	248	1,440	1,788	11,788

The major activity of the Rehabilitation Services Administration (RSA), which is now incorporated in the Administration for Handicapped Individuals, is providing support to state programs of vocational rehabilitation. RSA works with state rehabilitation agencies and other private and voluntary agencies to provide services for handicapped people to assist them in finding employment. RSA also provides leadership in the planning, coordination, and development of service programs for the handicapped.

Research

Approximately one-third of RSA's research is social. The remainder of the agency's research is concerned with medical rehabilitation. RSA is also concerned with the use and development of new technologies to meet the needs of the severely handicapped. (The support of medical research and technological developments has been excluded from the survey.) The agency's social research is concentrated in the following areas:

UNIVERSE OF NEEDS This area seeks to determine the number of disabled individuals in the population served and to ascertain their needs.

REHABILITATION SERVICES This area is concerned with the provision of services to the disabled. Studies focus on the psychosocial adjustments of disabled individuals and their employment opportunites. Studies focus on job development, barrier removal, and community alternatives to institutionalization.

MANAGEMENT OF VOCATIONAL REHABILITATION SYSTEM Management research is concerned with the delivery of state and private rehabilitation services. Research is under way to improve management in consumer involvement, program planning, decision making, and program control.

Policy Formulation Demonstrations

These demonstrations seek to emphasize different rehabilitation approaches for the severely disabled. One project used rehabilitated persons in a role-model capacity to stimulate others who are undergoing rehabilitation. Other projects have explored the use of cable television for the instruction of homebound persons and comprehensive service delivery approaches to severely disabled populations. New service delivery methods have been tested in state vocational rehabilitation agencies.

Dissemination

RSA places much emphasis on bringing into practice the knowledge and methods derived from its research and demonstration project. The agency has funded research utilization laboratories to package and disseminate information. Other dissemination activities include: funding of research utilization specialists in state vocational rehabilitation agencies; dissemination of numerous audiovisual materials; abstracting, indexing, and systematically distributing research reports and briefing materials; and the planning of a national rehabilitation information center.

Program Evaluation

The program evaluation activities of RSA have two goals: to provide a systematic approach for studying the impact, effectiveness, and efficiency of state agency operations; and to develop information for the purpose of policy planning and program management. RSA has evaluated its management information and utilization systems as well as other aspects of the federal vocational rehabilitation program.

For Further Information

Write Rehabilitation Services Administration, Department of Health, Education, and Welfare, 330 C Street, S.W., Washington D.C. 20201.

Office for Developmental Disabilities

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	942	304	76		1,322					1,322
1976	1,975	803	679		3,457		100		100	3,557
1977	1,680	450	536		2,666		100		100	2,766

The Office for Developmental Disabilities, which is now incorporated into the Administration for Handicapped Individuals, is concerned with those who have developmental disabilities, such as mental retardation and cerebral palsy, that originate in childhood, continue indefinitely, and constitute a substantial handicap. The office has three basic purposes:

○ to improve the planning capacity at state and local levels to use effectively the resources currently available to the developmentally disabled;

○ to serve as a catalyst to stimulate expansion of services for developmentally disabled persons at the state and local level; and

○ to establish an integrated network within which services at the state and local level will be coordinated.

Research

The office conducts research in several areas. It collects and analyzes nationwide data on trends in the quality, extent, and scope of services provided to the developmentally disabled. Individuals in various states receiving services were tracked on a longitudinal basis to assess their individual progress and the effectiveness of services provided. Cost-benefit studies, research on the legal rights of the handicapped, and a National Center for Law and the Handicapped are supported. Research is conducted on community alternatives and institutional reform related to the treatment of the developmentally disabled.

Policy Formulation Demonstrations

These demonstrations are geared to testing alternative service delivery mechanisms for the developmentally disabled. Client advocacy programs have been tested in some localities.

Program Evaluation

Evaluations are funded to assess the services currently being provided to developmentally disabled persons. An evaluation is being made to examine the standards and quality assurance mechanisms applicable to residential facilities and community agencies.

For Further Information

Write Office for Developmental Disabilities, Department of Health, Education, and Welfare, 330 C Street, S.W., Washington, D.C. 20201.

ADMINISTRATION FOR NATIVE AMERICANS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1977	1,000				1,000					1,000

Administration for Native Americans, which was formerly the Office of Native American Programs, provides a departmental focus for the special concerns of American Indians, Alaskan Natives, and Native Hawaiians. The administration is responsible for providing policy guidance to the secretary, administering grant programs to eligible Indian groups, and providing liaison with other federal agencies in Indian affairs. Grants are provided to strengthen the capability of Native American organizations, support community services, and encourage community development.

Research

A research plan was developed by the administration during fiscal 1976. The plan was implemented in fiscal 1977 with research obligations of $1 million. Research was funded on the following areas.

COMMUNITY PLANNING AND MANAGEMENT Research projects are examining current planning and management activities of tribal governments and are identifying deficiencies in the planning resources of Native American communities.

SOCIAL AND ECONOMIC INFRASTRUCTURES OF NATIVE AMERICAN COMMUNITIES Research is attempting to identify the variables that increase or maintain self-sufficiency and their relationship to other aspects of community life. Empirical measures of self-determination and self-sufficiency are being developed.

IDENTIFICATION AND ELIMINATION OF CRITICAL SERVICE GAPS Baseline information is being gathered on the extent of critical gaps in service concerning sustenance, health, education, law and order, and political participation. Alternative methods of filling those gaps are being analyzed.

ANALYSIS OF TARGET POPULATION Research is geared to developing an adequate data base on the number of Native Americans. Research is being conducted on methods of reaching the target population and projections of the future growth patterns of target groups.

For Further Information

Write Administration for Native Americans, Office of Health, Education, and Welfare, 200 Independence Avenue, S.W., Washington, D.C. 20201.

SOCIAL AND REHABILITATION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5.073	1.608	1.667		8.348	1.393		57	1.450	9.798
1976	3,275	1,900	2.004		7.179	2.171			2.171	9,350
1977	2.725	2,000	2.500		7.225	2.175			2,175	9.400

Until 1977, the Social and Rehabilitation Service (SRS) administered grants to states for the federal share of the following state expenditure programs: income assistance (Aid to Families with Dependent Children and assistance to the aged, blind, and disabled), medical assistance (Medicaid), social services, state and local training, and child welfare services. In addition to financially assisting states to provide medical, monetary, and social services to eligible Americans, the agency also attempted to ensure the best use of tax dollars by keeping those services as effective and economical as possible.

In the reorganization of HEW that took place in March 1977, the responsibilities of SRS were transferred to other agencies within HEW. The Social Security Administration took over the income assistance programs. A new agency, the Health Care Financing Administration, is now responsible for the Medicaid program. The Office of Human Development Services now administers the social service and child welfare service programs previously administered by SRS. The research, evaluation, and demonstration activities pertaining to these programs were also dispersed to each appropriate agency.

Research and Evaluation

The research and evaluation activities in SRS were heavily intertwined. Although obligations were divided between the two activities, they will be discussed jointly. The research and evaluation activities of SRS had two major purposes: to develop the analytical methodologies, program data, and the programmatic knowledge needed to evaluate and implement major policy and program options; and to develop the methodological and technological knowledge necessary to improve both federal, state, and local administration and local delivery of services. Research and evaluation were performed for social services, health services, income maintenance, and social security.

SOCIAL SERVICES For social services, a prime responsibility of SRS was monitoring and evaluating Title XX of the Social Service Amendments of 1974. The legislation required SRS to evaluate the effectiveness of the program, make recommendations to Congress for program improvements, and examine the appropriateness of existing day care standards. Title XX constitutes a special revenue-sharing approach to those social services previously financed under the public assistance provision of the Social Security Act. A first step in evaluating Title XX was the development of a micro-data reporting system of a sample of social service recipients. These data provide the basis, in conjunction with comparison groups, for evaluating the effectiveness of the program. Evaluation of Title XX will answer such questions as: whether Title XX services are instrumental in achieving recipient outcomes, e.g., do Title XX recipients of employment services get and retain more jobs and receive better pay than comparable individuals who do not receive such services? Do Title XX recipients with chronic health care problems who receive services have a better chance of avoiding institutionalization than comparable individuals not receiving such services? Other Title XX activities focus on evaluating state social service planning processes, citizen input into the planning process, and improved social service program management. Responsibility for Title XX now resides in the Administration for Public Services, which has a research and evaluation arm.

HEALTH SERVICES In the area of health services, SRS research and evaluation projects included examining claims processing procedures in eight states to reveal opportunities for the improvement of controls over erroneous expenditures; developing corrective action programs designed to reduce eligibility and payment errors in the Medicaid program; developing a hospital cost model that describes the interrelationships between supply and demand for hospital beds and other cost factors; and an analysis of the new "reasonable cost reimbursement" policy.

INCOME MAINTENANCE A variety of activities concerned with income maintenance was supported by SRS. A series of projects on the development of state forecasting capability, a micro-simulation model of the Aid to Families with Dependent Children program, and an analysis of caseload and cost dynamics were completed. Another study examined the effect of "income disregard" policies. Increased emphasis was placed on management studies of public assistance programs—effective organization, staffing, needed management control, optimal technology, impact of multiple program administration, etc. As part of these efforts, studies were funded on the capability of states to detect fraud and abuse in assistance programs.

SOCIAL SECURITY Finally, research primarily concerned with social security was funded. Examples included the use of health and rehabilitation services by recipients and the cost-effectiveness of such services in relation to employability.

Policy Formulation Demonstrations

Another major responsibility of SRS was testing alternative methods of service delivery. A large policy formulation demonstration is the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program, which aims to demonstrate and assess the cost-effectiveness of alternative methods and settings to ensure accessibility and effective use of EPSDT services at the state and local level. Other policy formulation demonstrations have tested monthly reporting systems; alternative payment systems; community-wide, long-term care models; and a social service voucher system.

Policy Implementation Demonstrations

These projects are geared to give high visibility to innovative projects in the hope that they will be adopted by others. Examples include the Brockton Multi Service Center, which was funded to bring into full operation a viable, documented, operating model of a comprehensive, local-level human service planning and delivery system. Another project was funded as a model of a comprehensive management system for the purchase of services at the state level.

SOCIAL SECURITY ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	16,761	5,839			22,600			485	485	23,085
1976	15,650	9,350			25,000			702	702	25,702
1977	17,650	9,350			27,000			653	653	27,653

Prior to 1977, the Social Security Administration administered three major programs: Social Security (Old Age, Disability, and Survivors Insurance), Medicare, and the Supplemental Security Income Program. The original Social Security Act of 1935 gave the agency continuing responsibility for research related to the problems of income security. The agency has built a strong in-house research capability, and today over two-thirds of its research is conducted intramurally by the Office of Research and Statistics. Throughout the history of the social security system, research has been an important element contributing to agency policy making and program administration.

The 1977 reorganization of HEW transferred responsibility for the Medicare program from the Social Security Administration to the

Health Care Financing Administration. The following research areas were transferred: Current Medicare Survey, Health Insurance and Related Research, and the National Health Insurance Model. The health policy formulation demonstrations were also transferred to the Health Care Financing Administration.

Research

A large portion of the agency's research involves the collection and analysis of statistical data. The Study Project decided that it is more appropriate to classify the agency's activities as research than as general purpose statistics, even though statistics are collected by the agency. The Social Security Administration supports research in the following areas (fiscal 1977 obligations are presented in parentheses).

ECONOMIC AND LONG-RANGE STUDIES ($2.3 million) This activity focuses on long-range research designed to project and interpret changing demographic, economic, and social trends as they relate to economic and social policy. This research includes social security financing, the economic effects of social security, the relationships of social security to private income maintenance programs, and the development of aggregate measures such as social welfare expenditures, economic projections, and labor market studies. A major activity is the development of an econometric model of the social security sector.

RETIREMENT HISTORY STUDY ($1.2 million) This is a 10-year longitudinal study designed to provide insight into the dynamics of the retirement process. The data it produces will provide information on actual changes in the lives of workers as a consequence of retirement and aging, contrasted with changes inferable from cross-sectional studies.

CROSS-SECTION RETIREMENT AND SURVIVORS STUDIES ($0.4 million) Cross-sectional surveys of the socioeconomic status of selected population groups are undertaken recurrently to provide the basis for appraising the adequacy of the social security program.

OTHER RETIREMENT AND SURVIVOR STUDIES ($1.0 million) This program examines the composition of social security beneficiary rolls in order to evaluate the effectiveness of the program in providing economic security to certain sectors of society. Research analyzes employment and earning patterns of women and assesses the effects of work history on the benefit rights of recently retired women. Analysis is undertaken to yield insights into the role of social security benefits for blacks and other minority groups that have been disadvantaged by social and economic conditions or racial discrimination.

CURRENT MEDICARE SURVEY ($2.0 million) The current Medicare survey is a monthly survey of aged and disabled beneficiaries that provides current estimates on medical care services used and charges incurred by persons covered under the program. The Current Medicare Survey is the only source of information on the number and kind of physicians' services used by Medicare beneficiaries.

HEALTH INSURANCE PROGRAM STATISTICS ($2.3 million) As a by-product of the claims review and payment process, Medicare program data are used to answer questions related to the Medicare system: how much money is being spent, how many people are being serviced, what kind of services are being used and to what extent. Routing and special reports are issued on charges, use, geographic variations, and other health sector information.

HEALTH INSURANCE AND RELATED RESEARCH ($1.9 million) The health insurance research program has primary responsibility for the continuing review of the existing Medicare program, the extent to which it meets medical care needs, and its effect on medical prices and on the health care industry, including the interaction of public and private programs. Among areas of particular concern are: health care provider cost analysis and cost monitoring; evaluation of utilization review and control; and drug studies, including research on the drug prices and market data.

DISABILITY SURVEYS ($0.4 million) The purpose of disability surveys is to examine the economic, medical, and social consequences of limitations on work activity of the disabled person and his or her family, including eligibility for public income maintenance programs.

OTHER DISABILITY RESEARCH ($1.2 million) This program compiles and analyzes the data collected through the operation of the disability insurance program. The characteristics of workers awarded and denied benefits, the subsequent experience of denied applicants and beneficiaries terminated because of return to work, trends in the disability population, effects of alternative eligibility requirements or definitions of disability, and related questions are examined. Longitudinal studies provide information on the duration of disability and subsequent employment and benefit experience.

OASDI PROGRAM STATISTICS ($2.0 million) Statistics derived from the Old Age and Survivors Disability Insurance programs are analyzed. These statistics provide employment and earning records (in particular, the continuous work history sample), which are used alone or in conjunction with survey data to study the earnings history of selected groups. From the continuous work history sample, a 10-year longitudinal employee data base has been developed.

SUPPLEMENTAL SECURITY INCOME (SSI) STUDIES ($2.0 million) Several studies are being undertaken to evaluate the effectiveness of supplemental security income benefits in providing economic security for aged, blind, and disabled persons with incomes below specific levels. A survey of low-income aged and disabled persons will identify and describe the SSI target population prior to the program's formal enactment and assess the subsequent income and social effect of SSI on the original target population.

NATIONAL HEALTH INSURANCE MODEL ($0.5 million) A model has been developed to estimate national health insurance costs and distributive effects. Included in the analysis are such areas as the demand for medical services, including estimates of price and income elasticities for different types of medical care services; pricing behavioral responses of medical care providers, including physicians and hospitals; and the effects of costs of private-public coverage. New models are being developed to explain the interactions between the supply of health care services, consumer demand for the services, and government regulatory action.

Policy Formulation Demonstrations

The Social Security Amendments of 1972 authorized the Social Security Administration to conduct experiments on alternative methods of health care reimbursements. Experiments are being conducted in the following six areas.

PROSPECTIVE REIMBURSEMENT STUDIES The object of these experiments is to determine the relative advantages and disadvantages of various methods of setting rates on a prospective basis under existing laws.

ALTERNATIVE PHYSICIAN PAYMENT ARRANGEMENTS These experiments concern patterns of physicians' practices, consideration in setting their fees and billing for services, and method of payment for physicians' services by third-party payers and beneficiaries.

PHYSICIAN EXTENDER REIMBURSEMENT The goals of these experiments are to determine under what circumstances Medicare, Medicaid, and other federal health insurance programs should reimburse for physician extenders and the most appropriate, equitable, and noninflationary methods and amounts of that reimbursement.

AMBULATORY SURGERY The purpose of these experiments is to determine whether provision of services provided by ambulatory facilities, which are not presently Medicare-qualified providers, results in more economical and more effective use of services.

DURABLE MEDICAL EQUIPMENT These experiments are designed to study whether unreasonable expenses result from prolonged rentals of durable medical equipment.

INCENTIVES REIMBURSEMENT These experiments assess the impact of experimental programs on the health care system in general and Medicare programs in particular. Experimental programs have been addressed to improving hospital efficiency by offering incentive payments for "savings earned" as a result of budget review, industrial engineering, etc.

LONG-TERM CARE REIMBURSEMENT These experiments will assess whether a nursing home reimbursement rate system will be able to ensure that quality is maintained and upgraded if currently deficient.

For Further Information

See *Work Plan, FY 1977 and 1978* and the *Social Security Bulletin* (monthly publication) which are both publications of the Social Security Administration. To obtain the *Work Plan* or other information on the SSA, write Social Security Administration, Office of Research and Statistics, Department of Health, Education, and Welfare, Room 1121, Universal Building North, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009.

For information on the health research and demonstrations formerly sponsored by the Office of Research and Statistics, write Office of Policy, Planning and Research, Health Care Financing Administration, Department of Health, Education, and Welfare, Room 5082, HEW South, 330 C Street, S.W., Washington, D.C. 20201.

12 Department of Housing and Urban Development

The establishment of the U.S. Department of Housing and Urban Development (HUD) in 1965 created a cabinet-level department combining all federal agencies then dealing with problems of housing and urban development. The department is now the principal federal agency responsible for programs concerned with housing needs and improving and developing the nation's communities. In fiscal 1977, HUD was the seventh-largest departmental funder of social knowledge production and application activities in the federal government.

The initial R&D emphasis of HUD was more technological than social. In the late 1960s and early 1970s, the dominant R&D activity was Operation Breakthrough, an attempt to accelerate the production of housing through a modular, factory-built approach. The primary objective of the project was technological, to break through the barriers that prevented the use of improved methods and design, production, land use, marketing technology, and management in housing. Operation Breakthrough ended in 1973 and, since that time, HUD has shifted its R&D program to emphasize social rather than technological R&D. In fiscal 1977, approximately 85 percent of the department's R&D was social and the rest was technological. The technological R&D activities are primarily concerned with energy and the environment as they relate to housing and community development. A current example of such technological R&D is the support of the design of a Modular Integrated Utility System (MIUS), which will be a practical total energy and integrated utility system for housing complexes.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 12-1 presents the distribution of HUD's social knowledge production and application obligations. Policy formulation demonstrations are the largest category because of the department's housing allowance experiments; the second-largest category is research.

The two demonstration categories, policy implementation and policy formulation demonstrations, account for approximately 40 percent of the department's knowledge production and application activities. It is interesting to note that the two types of demonstrations, as might be expected by their definitions, are aimed at different audiences. The policy formulation demonstrations—the housing allowance

TABLE 12-1 Department of Housing and Urban Development Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	6.9	9.9	14.6
	(12.9)[a]	(17.1)	(21.4)
Policy formulation demonstrations	18.8	18.9	19.4
	(34.9)	(32.6)	(28.3)
Program evaluation	2.5	3.6	4.0
	(4.7)	(6.3)	(5.9)
General purpose statistics	8.6	11.2	11.3
	(15.9)	(19.4)	(16.5)
Total	36.9	43.7	49.3
	(68.4)	(75.3)	(72.1)
Knowledge application	7.3	6.8	9.4
Policy implementation demonstrations	(13.5)	(11.8)	(13.7)
Development of materials	1.4	2.6	3.7
	(2.6)	(4.4)	(5.5)
Dissemination	8.3	4.5	6.0
	(15.5)	(8.6)	(8.7)
Total	17.0	14.4	19.1
	(31.6)	(24.7)	(27.9)
TOTAL	53.9	58.0	68.4
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

experiments—are aimed at federal policy makers, to assist them in developing improved federal policies concerning housing allowances. In contrast, the policy implementation demonstrations are aimed at showing state and local decision makers—third parties—new programmatic concepts that can be implemented at the local level.

ORGANIZATION OF THE DEPARTMENT

Figure 12-1 presents an organizational chart of HUD. As a consequence of the 1973 reorganization of the department, all HUD social knowledge production and application activities—research, demonstrations, policy development, economic research, and program evaluation—are conducted in the Office of the Assistant Secretary for Policy Development and Research. Formerly, these activities were conducted primarily within the Office of the Assistant Secretary for Research and Technology and the Office of the Assistant Secretary for Policy Development and Evaluation. Other activities were scattered throughout the rest of the department.

No social knowledge production and application activities are supported by HUD outside the Office of the Assistant Secretary for Policy Development and Research; however, the office frequently works closely with other offices within HUD. The community development and growth program is coordinated with the Office of the Assistant Secretary for Community Planning and Development, and community development research is also coordinated with the New Communities Development Corporation. The Office of the Assistant Secretary for Policy Development and Research has responsibility for evaluating all HUD programs. It has evaluated the Mortgage Insurance Program and the Target Project Program for the Office of the Assistant Secretary for Housing Management.

HUD is somewhat unusual in having a centralized R&D office that conducts a broad range of knowledge production and application activities for the entire department.

AUDIENCE

Because the office is the only unit in the department to support social knowledge production and application activities, these activities have not been categorized by agency or office. Instead, in Table 12-2, the total knowledge production and application obligations of the office are categorized as to their primary audience or goal.

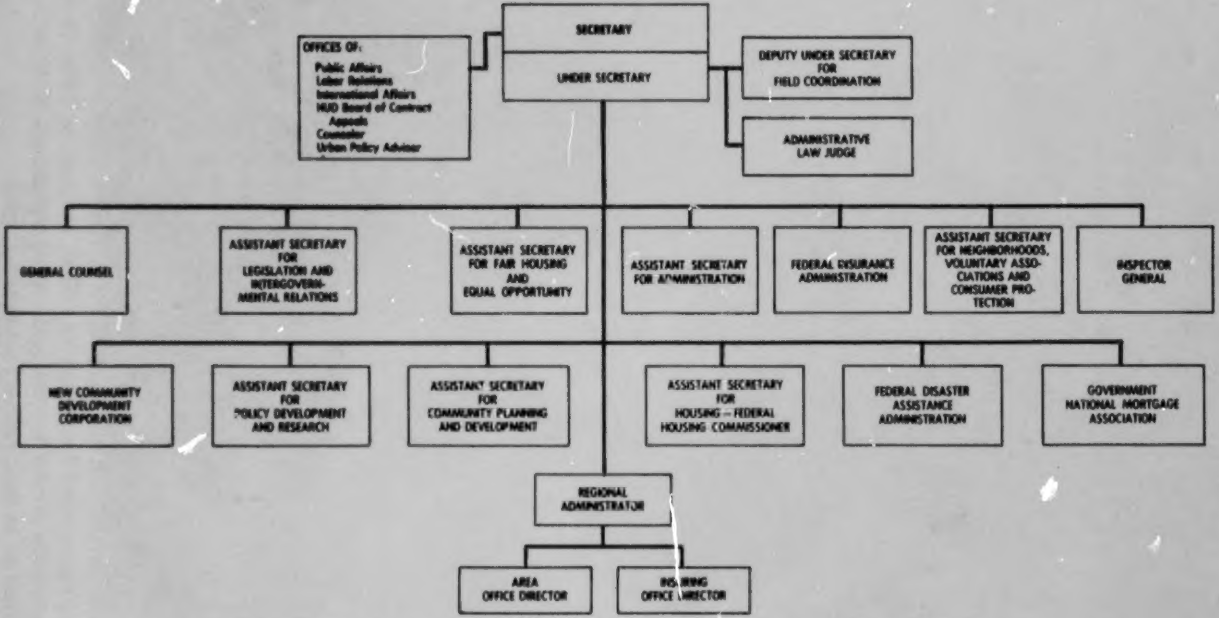
SECRETARY
UNDER SECRETARY
OFFICES OF:
Public Affairs
Labor Relations
International Affairs
HUD Board of Contract Appeals
Counselor
Urban Policy Advisor
DEPUTY UNDER SECRETARY FOR FIELD COORDINATION
ADMINISTRATIVE LAW JUDGE
GENERAL COUNSEL
ASSISTANT SECRETARY FOR LEGISLATION AND INTERGOVERNMENTAL RELATIONS
ASSISTANT SECRETARY FOR FAIR HOUSING AND EQUAL OPPORTUNITY
ASSISTANT SECRETARY FOR ADMINISTRATION
FEDERAL INSURANCE ADMINISTRATION
ASSISTANT SECRETARY FOR NEIGHBORHOODS, VOLUNTARY ASSOCIATIONS AND CONSUMER PROTECTION
INSPECTOR GENERAL
NEW COMMUNITY DEVELOPMENT CORPORATION
ASSISTANT SECRETARY FOR POLICY DEVELOPMENT AND RESEARCH
ASSISTANT SECRETARY FOR COMMUNITY PLANNING AND DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING – FEDERAL HOUSING COMMISSIONER
FEDERAL DISASTER ASSISTANCE ADMINISTRATION
GOVERNMENT NATIONAL MORTGAGE ASSOCIATION
REGIONAL ADMINISTRATOR
AREA OFFICE DIRECTOR
INSURING OFFICE DIRECTOR

FIGURE 12-1 Department of Housing and Urban Development organizational chart.

TABLE 12-2 Department of Housing and Urban Development Social Knowledge Production and Application by Primary Goal or Audience (fiscal 1977, $millions)

Primary Goal or Audience	Total Obligations for Social Knowledge Production and Application	Percentage of Obligations
Improvement of federal policies	29.4	43.1
Knowledge for third parties	25.8	37.7
Collection of statistics	13.1	19.2
TOTAL	68.3	100.0

The table clearly points out the variety of functions that HUD knowledge production and application activities serve, primarily improving federal policy and providing knowledge for third parties. An important secondary concern is the improvement of HUD programs.

POLICY AREAS IN THE DEPARTMENT

In fiscal 1977, over 95 percent of the HUD social knowledge production and application obligations was funded in the housing and community development policy area. The remainder was funded in the policy areas of health, law enforcement, natural resources, and the environment.

OFFICE OF POLICY DEVELOPMENT AND RESEARCH

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	6,927	18,828	2,539	8,592	36,886	7,271	1,398	8,343	17,012	53,898
1976	9,897	18,890	3,641	11,242	43,670	6,823	2,568	4,964	14,355	58,025
1977	14,618	19,377	4,042	11,273	49,310	9,383	3,743	5,951	19,077	68,387

The Office of the Assistant Secretary for Policy Development and Research supports a variety of social knowledge production and application activities related to the mission of HUD. The role of HUD's research program is to identify, test, and demonstrate solutions to housing and community development problems and to make those solutions available to those responsible for meeting the nation's housing and community development needs at the state and local level. The office attempts to develop a better understanding and improve the general state of knowledge concerning housing and community development.

The R&D activities of the Office of the Assistant Secretary for Policy Development and Research were authorized by Title V of the Housing and Community Development Act of 1970, which directed the secretary of HUD to undertake programs of research studies, testing, and demonstrations related to the mission and programs of the department. Specific authorizations have been established by Congress for more specific research efforts, such as research on housing allowances, housing abandonments, lead paint poisoning, and housing for those with special needs, such as the elderly and the handicapped.

The program serves as both a national and departmental focal point for housing and community development research. In carrying out its wide responsibilities, the office has the following responsibilities:

- developing, planning, executing, and evaluating HUD's research and demonstration programs;
- disseminating HUD research results; and

TABLE 12-3 Office of Policy Development and Research (fiscal 1977, $millions)

Topic	Total Obligations for Social Knowledge Production and Application
Community development	11.9
Housing	31.0
Product dissemination and transfer	0.7
Program evaluation	4.0
State and local government	9.5
Statistics	11.3
TOTAL	68.4

- providing program evaluation, economic analysis, and policy analysis to the secretary to assist in the formulation of departmental policy for national housing and community development goals and program priorities and objectives.

The Office of the Assistant Secretary for Policy Development and Research is organized around the topics presented in Table 12-3, each of which is discussed separately.

For Further Information

See *Compendium of Research Contracts and Reports* (1973) HUD-PD&R-4043-73, and *PDR: Fiscal Year 1977 Research and Technology Program*, internal document, which are both publications of the Office of Policy Development and Research, or write Office of the Assistant Secretary for Policy Development and Research, Department of Housing and Urban Development, 451 Seventh Street, S.W., Washington, D.C. 20410.

COMMUNITY DEVELOPMENT

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,105	1,217			4,322	2,464		1,144	3,608	7,930
1976	3,346	877			4,223	3,518		785	4,303	8,526
1977	5,831	876			6,707	4,392		800	5,192	11,894

The Community Development and Management Division and the Community Conservation Research Division support activities on community development, the second-largest topic of concern to the Office of the Assistant Secretary for Policy Development and Research.

Research

Research is conducted on: neighborhood preservation and revitalization, environmental improvement and resource conservation, and community development and growth.

NEIGHBORHOOD PRESERVATION AND REVITALIZATION Research is supported to determine appropriate public and private actions that can be taken to prevent and reverse neighborhood decline, including decline in those neighborhoods in which the presence of HUD-acquired properties may contribute to such decline. Research topics are as follows:

Preservation Analysis focuses on developing an understanding of the causes and process of decline; establishing means to identify neighborhoods open to decline and preservation activities; and identifying for local users those measures that can reverse the process of decline and preserve neighborhood environments. Research is being undertaken to examine the specific sectors that have a major impact on the process of neighborhood decline: insurers, appraisers, lenders, real estate brokers, and managers.

Revitalization of Blighted Neighborhoods is directed at providing communities with needed information about effective revitalization efforts that can be used in the development of local policies and programs under the Community Development Block Grant Program.

Disposition of Acquired Properties includes a review of lending practices and mortgage defaults to develop a better understanding of the housing-cost-to-income relationship required to successfully carry a mortgage.

ENVIRONMENTAL IMPROVEMENT AND RESOURCE CONSERVATION The goal of this program is to learn how to assist the processes of community development while preserving and enhancing the quality of life. Solutions to problems raised by energy and environmental limitations are sought. While nearly two-thirds of this area is nonsocial, one program area is devoted to the study of the effects of development on the environment. Research is conducted on improving land use practices and environmental planning procedures.

COMMUNITY DEVELOPMENT AND GROWTH Research is funded to provide federal, state, and local governments with information and techniques to understand the forces of growth and development and to assist them in developing strategies to shape the direction and quality of growth and development. The program is divided in two:

National and Community Growth Research focuses on planning and directing effective economic community development programs. Research is supported to analyze and evaluate issues, data, and information on demographic, economic, social, land use, and government trends and changes. Simulation models are used to study migration patterns and housing market dynamics.

New Communities is geared to assist the HUD New Communities Administration make decisions affecting existing legislation and long-term decisions on future policy and legislative initiatives. Examples of research include a study of educational systems in new communities and a study of the state role in new community development.

Policy Implementation Demonstrations

Next to research, policy implementation demonstrations are the largest knowledge production and application activity in community development. Two large policy implementation demonstrations concern neighborhood preservation and revitalization.

URBAN REINVESTMENT TASK FORCE (URTF) DEMONSTRATION A key to the preservation of a neighborhood is the development of confidence in the neighborhood on the part of the community's residents, local government, and commercial and financial interests. In conjunction with the Federal Home Loan Bank Board, HUD established the URTF demonstration. The task force directs efforts to encourage neighborhood preservation and home improvements. This project is meant to demonstrate how neighborhoods can be "turned around" by local residents working with local financial institutions and local governments. It makes loans at flexible rates to neighborhood residents who do not meet commercial standards. The objective of this project is for other neighborhoods and nearby cities to observe the process so that they can initiate similar efforts appropriate to meet their particular needs.

URBAN HOMESTEADING This well-known demonstration is supported by 23 cities that view urban homesteading as a device to preserve selected ailing urban neighborhoods. Both the socioeconomic characteristics of successful homesteaders and the various legal, financial, and administrative mechanisms employed by municipalities in conducting these demonstrations are being analyzed.

HOUSING

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,759	17,091			19,850	4,807	564	241	5,612	25,462
1976	5,321	17,408			22,729	3,305	1,335	326	4,966	27,695
1977	6,855	17,461			24,316	4,991	1,637	100	6,728	31,044

Activities on housing, the largest area of social knowledge production and application in the Office of the Assistant Secretary for Policy Development and Research, are conducted in four divisions: the Housing Research Division; the Community Conservation Division; the Energy, Building, and Standards Research Division; and the Office of Economic Affairs.

Research

Research is conducted on a wide variety of matters related to housing issues. Areas of research include: increasing opportunities; improving safety and standards; improving construction, delivery, and costs; and improving management and maintenance.

INCREASING OPPORTUNITIES The objective of this program area is to increase access to decent housing for those persons whose opportunities are limited by income discrimination, age, disability, or insufficient information.

Equal Opportunity/Fair Housing The program is concerned with understanding the nature, extent, and effects of discriminatory practices, providing the basis for increasing compliance with equal opportunity statutes, executive orders, and department regulations.

Special User Requirements The program is concerned with the housing and community service needs of special users—the elderly, the handicapped, the displaced, single individuals, broken families, and large households.

Housing Markets and Consumer Education The program examines the housing market and develops ways to improve consumer housing choice.

IMPROVING SAFETY AND STANDARDS Research in this program area is concerned with achieving safer homes and developing standards that reduce the life, health, and financial risks to occupants and building owners. Much of this research is technological and excluded from the survey totals. However, some social research is funded:

Fire Safety Systems analysis is supported to analyze the interrelationships between the various possible events in fires and to evaluate the effectiveness of alternative means for achieving fire safety.

Lead Paint Hazard Reduction National and local surveys are conducted to develop more reliable data on the extent of lead paint use in housing.

Security A security vulnerability survey instrument was developed to measure accurately the incidence of crime and security problems in public housing.

IMPROVING CONSTRUCTION, DELIVERY, AND COSTS A research program was established as a result of concerns about rising costs, limited natural and energy resources, fluctuations in housing production levels, and the impact of questionable constraints on housing construction and use. Roughly half of this research was judged to be technological. Social research is concentrated on acquisition costs, housing supply, and finance, and research is supported to develop a better understanding of the factors affecting housing finance, production, and supply.

IMPROVING MANAGEMENT AND MAINTENANCE Research in this program area is focused on ways to improve efficiency and to reduce the costs of housing operation, maintenance, and repair. Research is funded to develop a better understanding of housing maintenance and rehabilitation processes and to identify promising procedures to extend the useful life of existing housing. An analysis of home improvement lending practices has also been conducted.

Policy Formulation Demonstrations

The dominant policy formulation demonstration on housing is the Experimental Housing Allowance Program (EHAP). This experiment is testing the feasibility of providing direct cash assistance to eligible families for their rental or mortgage payments. EHAP is designed to test the potential of direct cash assistance and to provide needed information on three fundamental questions: how families use their allowances, how the housing market responds to allowances, and how allowance programs should be administered. To answer each of these questions, three experiments have been funded.

THE DEMAND (CONSUMER) EXPERIMENT This experiment is concerned with determining how households, receiving alternate forms and amounts of assistance, use their housing allowance. The experimental sites are the cities of Pittsburgh and Phoenix.

THE SUPPLY (MARKET) EXPERIMENT This experiment attempts to simulate a full-scale direct cash assistance program in the cities of Green Bay and South Bend. The experiment is measuring the reactions of an entire housing market to a full-scale housing allowance program in terms of housing or rental costs, residential mobility patterns, the behavior of bankers, realtors, and other market intermediaries, and the general community reaction.

THE ADMINISTRATIVE AGENCY (MANAGEMENT) EXPERIMENT This experiment is attempting to learn about the various methods of administering a direct cash assistance program. Eight different public agencies were given broad latitude in designing and administering housing allowance programs for a maximum of 900 families. Each agency offered housing assistance for an experimental period of two years. Information collected from this experiment is being analyzed in terms of four major administrative processes: enrollment, payment operation and controls, participant services, and overall management.

Policy Implementation Demonstrations

In contrast to policy formulation demonstrations, which seek to develop new knowledge, policy implementation demonstrations serve to "show off" new methods of delivery in the hope that appropriate local agencies will implement these programs. Several policy implementation demonstrations are now being funded on housing.

PUBLIC HOUSING MANAGEMENT IMPROVEMENT PROGRAM This program is demonstrating cost-effective management techniques that can be applied nationally. The program has demonstrated nine readily transferable management changes for public housing that have potential for improving the efficiency and quality of public housing operations.

EQUAL OPPORTUNITY/FAIR HOUSING Several policy implementation demonstrations are being funded on this topic. A consortium of real estate and human rights organizations was funded to develop an areawide affirmative marketing plan in the local real estate industry. Another project demonstrated a model of comprehensive fair housing and legal aid programs.

Development of Materials

The development of several handbooks has been supported by the housing program. A residential construction inspection handbook was developed. A catalog of existing innovative local programs and procedures designed to stimulate housing maintenance and rehabilitation was also supported. Five universities were funded to develop curriculum and training materials on public housing management.

For Further Information

See *The Experimental Housing Allowance Program* (1974) HUD-PDR-74, *Second Annual Report of the Experimental Housing Allowance Program* (June 1974), *Experimental Housing Allowance Program: Initial Impressions and Findings* (April 1975), Interim Report, which are publications of the Office of the Assistant Secretary for Policy Development and Research.

To obtain the documents listed above, write Office of the Assistant Secretary for Policy Development and Research, Department of Housing and Urban Development, 451 Seventh Street, S.W., Washington, D.C. 20410.

PRODUCT DISSEMINATION AND TRANSFER

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	216				216			218	218	434
1976								493	493	493
1977								653	653	653

The Product Dissemination and Transfer Division is concerned with the dissemination and transfer activities of the Office of Policy Development and Research. Its purpose is to ensure greater use of HUD-sponsored research results by state and local government, the building industry, and others whose responsibilities affect the quality of the urban environment.

Dissemination

The division supports a variety of dissemination activities, including the development and improvement of systems to collect, store, and retrieve information on research projects and reports. Other activities include the dissemination of research results via executive summaries and brochures. Information packages are developed to assist state and local government practitioners.

PROGRAM EVALUATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			2,539		2,539					2,539
1976			3,641		3,641					3,641
1977			4,042		4,042					4,042

The Office of the Assistant Secretary for Policy Development and Research conducts program evaluations of policy development and research activities and HUD operating programs.

Program Evaluation

The two areas of program evaluation are described below.

EVALUATION OF POLICY DEVELOPMENT AND RESEARCH ACTIVITIES This program is concerned with evaluating the research, demonstration, and data collection activities of the Office of Assistant Secretary for Policy Development and Research to ensure that they are both effectively managed and cost-effective. Evaluation efforts focus on specific programs and are used in redirecting ongoing activities and planning new initiatives to ensure a more effective research program. These evaluations attempt to ascertain whether research projects employ appropriate management techniques; determine the cost-effectiveness of the methods, procedures, and systems developed under HUD-funded research; and identify those research products and results that have the highest potential for dissemination and transfer to various user groups. Both research studies and demonstration projects are evaluated.

EVALUATION OF HUD OPERATING PROGRAMS The objective of this program is to provide timely and accurate evaluations of the department's operating programs. Particular attention is given to early identification of important policy issues so that relevant analyses can be completed and the findings used in department, policy, budget, and other decision-making processes. These program evaluations concentrate on identifying and measuring the benefits and costs (both intended and unintended) of specific HUD programs and activities; identifying effective or ineffective programs; and quantifying, when possible, the trade-offs of alternative policy decisions. Major evaluations of the following programs were conducted during fiscal 1976.

Federal Housing Administration Programs In this evaluation, several aspects of the Federal Housing Adminstration insurance programs were examined to determine appropriate objectives for the Federal Housing Administration in light of the functions performed by the private mortgage insurance industry.

Community Development Block Grant Program This evaluation is attempting to answer several fundamental questions in preparation of its 1977 congressional review. Special emphasis is being placed on finding out how well the allocation formula distributes funds in relationship to objective measures of need.

Fair Housing Program This evaluation is reviewing the extent and impact of housing discrimination and is developing methodology to determine the effects of Title VIII programs.

Other evaluations include analysis of selected issues regarding defaults and subsidy phase patterns; incentive fee systems for property disposition; the flood insurance program; the role of state housing agencies; and public housing operating subsidies.

STATE AND LOCAL GOVERNMENT

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	847	520			1,367		834	6,740	7,574	8,941
1976	1,230	605			1,835		1,233	3,360	4,593	6,428
1977	1,932	1,040			2,972		2,106	4,398	6,504	9,476

The state and local government program, which is conducted entirely by the Division of Community Development and Management, aims to improve the capabilities of state and local governments and the delivery of public services. Since local governments have much responsibility in setting priorities and shaping programs in response to specific local needs, they require new and greater analytical capabilities. This program does not concentrate on producing new knowledge but instead emphasizes the application of knowledge; nearly 70 percent of its total knowledge production and application funds is used for knowledge application activities.

Research

Research activities are funded on: taxation mechanisms, land use control techniques, organizational structures, and improving delivery methods of public services.

TAXATION MECHANISMS This research program studies the capacity of local governments to generate revenue equitably and efficiently and to manage funds received. Research is conducted on the use of taxes in implementing community development strategies.

LAND USE CONTROL TECHNIQUES This program develops, for state and local government use, land use guidance techniques that can be used in implementing community development programs. One project analyzed the relationship between zoning and market processes affecting land prices.

ORGANIZATIONAL STRUCTURES Research in this area is prompted by the fact that many of the problems faced by state and local governments are often complicated by existing jurisdictional lines and organizations. This research program identifies the organizational difficulties that localities see as limiting their effective performance and provides those localities with information and procedural models for structural and functional organization. Research projects include a study of two-tier governments, substate regionalism, and joint provision of services as a method to improve service delivery.

IMPROVING DELIVERY METHODS OF PUBLIC SERVICES Research in this area aims to assist state and local government officials to increase the productivity with which available resources are used to deliver services to the public. Research is supported on the development of new methods for predicting service demands, locating facilities, providing efficient, equitable delivery of public services, and analyzing community problems and evaluating solutions. In the past, research has focused on the delivery of municipal fire and emergency services.

Policy Formulation Demonstrations

A limited number of policy formulation demonstrations are supported. Most are concerned with examining methods to improve local productivity. One project selected communities to identify, test, evaluate, and document strategies for improvement of productivity. These communities tested innovative approaches to improving the operation and maintenance of parks, recreation facilities, streets, and highways.

Development of Materials

The development of materials, such as handbooks, is a major means of assisting state and local government officials and disseminating information to them. Materials have been prepared in the following areas.

TAXATION MECHANISMS Handbook and training materials were prepared on methods to increase the efficiency, equity, and yield of property tax systems and the relationships of property taxes to local economic growth.

LAND USE CONTROL TECHNIQUES Materials have been developed to assist state and local government officials in using land guidance techniques.

IMPROVED PUBLIC SERVICE DELIVERY METHODS A handbook on productivity was funded that presents information on various aspects of government productivity improvement to assist local government managers and analysts.

Dissemination

Dissemination is the largest activity of the state and local government program area. A variety of dissemination methods are used—technical assistance, creation of dissemination networks, and information retrieval systems.

The Office of the Assistant Secretary for Policy Development and Research supports much technical assistance. University faculty and students have been funded to provide professional planning and design assistance to communities that could not normally afford such specialized services. Based on the success of this program, similar efforts have been funded to provide technical management assistance to local governments. A recent project used the resources of schools of public administration to provide administrative and management assistance to smaller communities that normally would be unable to acquire such technical assistance.

The urban observatory program, another example of the concept of technical assistance via cooperation between universities and cities, is now being tried in a group of small cities. In-service and in-career education is a type of technical assistance. The office is supporting five professional organizations to assist in meeting the training needs of local government officials. Another example of technical assistance is a grant to eight black colleges to develop community resource centers. Centers were established at each college for the purpose of developing, testing, and evaluating models designed to enhance planning and management capacities of selected general purpose governments.

Prior to fiscal 1977, the office supported municipal information systems aimed at improving and modernizing the information-gathering capabilities of municipalities to assist in their management and decision-making processes. Competitive awards were made to selected cities for the development of part or all of an Integrated Municipal Information System.

STATISTICS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975				8,592	8,592					8,592
1976				11,242	11,242					11,242
1977				11,273	11,273					11,273

The Office of Economic Affairs is responsible for collecting general purpose statistics on housing for HUD. These statistics provide comprehensive information on the status of the existing housing stock; the location, volume, characteristics, and price of new housing in the United States; and the level of residential construction loans and permanent financing. This information, augmented by special studies, is useful in the formulation of housing and community development policy and in the direction of HUD programs.

General Purpose Statistics

A major effort is made to provide data and accompanying analyses to national, state, and local government officials; the housing industry; and the financial community. The following statistical programs are supported by the Office of the Assistant Secretary for Policy Development and Research.

THE ANNUAL HOUSING SURVEY This survey is designed to measure changes in the nation's housing inventory by compiling data on the physical conditions of the housing units, the environment in which they are located, and relevant characteristics of their occupants. The survey consists of a national sample and a sample of standard metropolitan statistical areas. The following reports have been based on the survey: General Housing Characteristics; Indicators of Housing and Neighborhood Quality; Financial Characteristics of the Housing Inventory; and Housing Characteristics of Recent Movers.

OTHER CONTINUING DATA SERIES The data series provide continuing information on the production and marketing of housing of all types and on mortgage lending and commitment activities. Included are surveys of market absorption of new rental units, new home sales, housing construction completions, monthly surveys of mortgage lending and commitment activity, and mobile home on-site placements.

SPECIAL STUDIES AND SURVEYS These complement the continuing data series and are conducted to provide in-depth information on important issues. Recent studies have been conducted on the number of construction industries not covered by collective bargaining agreements and an analysis of data on vacancy rates.

13 Department of the Interior

Of the 12 cabinet-level departments, the U.S. Department of the Interior supports the smallest amount of social knowledge production and application—$13 million. This is partially explained by the fact that no social knowledge production and application activities were found in the two largest R&D agencies in the department—the Bureau of Mines and the Geological Survey, both of which obligate over $100 million annually in R&D but support no social knowledge production and application activities. The Bureau of Mines is concerned primarily with metallurgy research, and the Geological Survey concentrates on geological research. Small amounts of social knowledge production and application were found in the nine agencies in the department.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 13-1 presents the distribution of the department's social knowledge production and application activities. Research is the largest activity supported, accounting for nearly 75 percent of the department's total knowledge production and application. The second-largest category is general purpose statistics, which are funded primarily by the Mining Enforcement and Safety Administration.

TABLE 13-1 Department of the Interior Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	8.5	9.4	9.6
	(65.4)[a]	(70.8)	(72.4)
Policy formulation demonstrations			
Program evaluation	0.8	0.6	0.6
	(6.1)	(4.2)	(4.3)
General purpose statistics	2.3	2.0	1.7
	(17.5)	(15.0)	(13.0)
Total	11.5	12.0	11.9
	(89.0)	(90.0)	(89.7)
Knowledge application			
Policy implementation demonstrations	0.1	0.1	0.1
	(0.9)	(0.8)	(0.8)
Development of materials	0.8	0.7	0.7
	(6.6)	(5.0)	(5.0)
Dissemination	0.5	0.6	0.6
	(3.5)	(4.2)	(4.5)
Total	1.4	1.3	1.4
	(11.0)	(10.0)	(10.3)
TOTAL	13.0	13.3	13.3
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

ORGANIZATION OF THE DEPARTMENT

Figure 13-1 presents an organizational chart for the Department of the Interior, which is administered by three assistant secretaries and the commissioner of Indian affairs. Social knowledge production and application activities are supported in each of four divisions of the department. Within the cluster of agencies reporting to the assistant secretary for energy and minerals, only the Mining Enforcement and Safety Administration and the Office of Minerals Policy support any social knowledge production and application activities.

Table 13-2 lists the agencies in the department that fund social knowledge production and application activities. The National Park Service is the largest funder of knowledge production and application

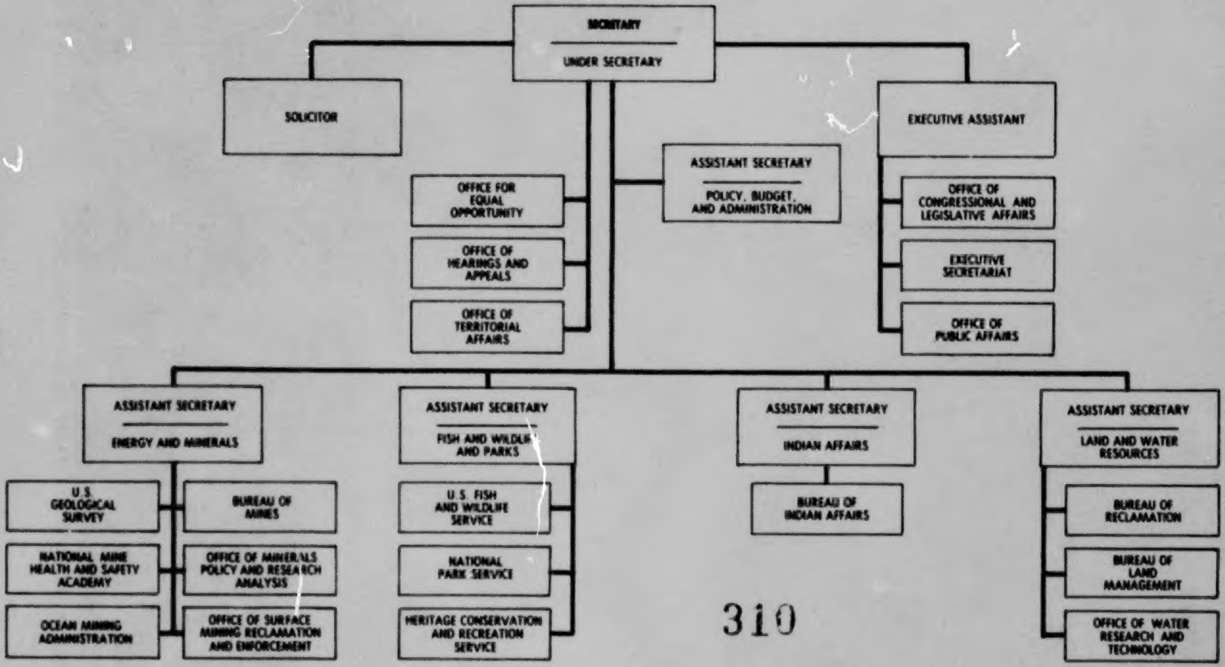
SECRETARY
UNDER SECRETARY
SOLICITOR
EXECUTIVE ASSISTANT
ASSISTANT SECRETARY
POLICY, BUDGET, AND ADMINISTRATION
OFFICE FOR EQUAL OPPORTUNITY
OFFICE OF HEARINGS AND APPEALS
OFFICE OF TERRITORIAL AFFAIRS
OFFICE OF CONGRESSIONAL AND LEGISLATIVE AFFAIRS
EXECUTIVE SECRETARIAT
OFFICE OF PUBLIC AFFAIRS
ASSISTANT SECRETARY
ENERGY AND MINERALS
ASSISTANT SECRETARY
FISH AND WILDLIFE AND PARKS
ASSISTANT SECRETARY
INDIAN AFFAIRS
ASSISTANT SECRETARY
LAND AND WATER RESOURCES
U.S. GEOLOGICAL SURVEY
BUREAU OF MINES
NATIONAL MINE HEALTH AND SAFETY ACADEMY
OFFICE OF MINERALS POLICY AND RESEARCH ANALYSIS
OCEAN MINING ADMINISTRATION
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT
U.S. FISH AND WILDLIFE SERVICE
NATIONAL PARK SERVICE
HERITAGE CONSERVATION AND RECREATION SERVICE
BUREAU OF INDIAN AFFAIRS
BUREAU OF RECLAMATION
BUREAU OF LAND MANAGEMENT
OFFICE OF WATER RESEARCH AND TECHNOLOGY

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FIGURE 13-1 Department of the Interior organizational chart.

TABLE 13-2 Department of the Interior Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
National Park Service	4.5	Research	Operating agency	Improvement of federal programs
Office of Water Research and Technology	2.5	Research	R&D agency	Knowledge for third parties
Bureau of Indian Affairs	2.5	Research	Operating agency	Improvement of federal programs
Bureau of Land Management	1.2	Research	Operating agency	Improvement of federal programs
Mining Enforcement and Safety Administration	1.2	General purpose statistics	Operating agency	Improvement of federal programs
Other agencies[b]	1.4	Research	Operating agency/ policy-making office[c]	Improvement of federal program/ improvement of federal policy
TOTAL	13.3			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

[b] Bureau of Outdoor Recreation, Bureau of Reclamation, Office of Mineral Policy Development, U.S. Fish and Wildlife Service.

[c] Office of Mineral Policy Development is a policy-making office that has as its primary goal/audience the improvement of federal policy; all others are operating programs which have as their goal the improvement of federal programs.

in the department, accounting for approximately 35 percent of the department's total obligations. The Office of Water Research and Technology and the Bureau of Land Management are the second- and third-largest, each accounting for approximately 18 percent of the total.

As Table 13-2 shows, most of the social knowledge production and application in the Department of the Interior is conducted for the improvement of department programs. The one exception is the Office of Water Research and Technology, an R&D agency that assists regions and states with the problems of water resources.

POLICY AREAS IN THE DEPARTMENT

Table 13-3 presents the agencies that fund social knowledge production and application activities in the Department of the Interior by policy area. It is interesting to note that 26 percent of the department's knowledge production and application is in human resources. Educational research is funded by the Bureau of Indian Affairs. The statistical program of the Mining Enforcement and Safety Administration is concerned with environmental health and classified under health.

The largest policy area, as expected, is natural resources and the environment. The Bureau of Indian Affairs and the Mining and Safety Administration are the only agencies in the department that did not support activities in natural resources and the environment.

BUREAU OF INDIAN AFFAIRS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975		120	408	30	558	120		608	728	1,286
1976		405	408	20	833	100		618	718	1,551
1977		1,300	416	20	1,736	100		620	720	2,456

A major objective of the Bureau of Indian Affairs is to encourage and train Indian and Alaskan people to manage their own affairs. The bureau works with Indians, other federal agencies, state and local governments, and other groups to develop and implement effective programs for Indian advancement. The bureau is concerned with providing quality education services for the benefit of both Indian children and adults on reservations; this includes seeking adequate educational opportunities for Indians in public systems and assisting Indians in creating and managing education systems for their own benefit.

Research

Studies are funded to improve the quality of Indian education; much of this research is conducted by the Indian Educational Resource Center in Albuquerque, New Mexico. Other research concerns social services for Indians, including research on the special needs of Indians related

TABLE 13-3 Department of the Interior Agencies: Social Knowledge Production and Application Activities by Policy Areas (fiscal 1977, $millions)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
Bureau of Indian Affairs		1.9 (78.2)[a]	0.02 (0.8)		1.9 (79.0)	0.5 (20.4)	0.02 (0.7)				0.5 (21.0)					2.5 (100.0)
Bureau of Land Management		0.01 (0.9)			0.01 (0.9)	0.1 (5.2)					0.1 (5.2)		1.1 (93.9)	1.1 (93.9)		1.2 (100.0)
Mining Enforcement and Safety Administration	1.2 (100.0)				1.2 (100.0)											1.2 (100.0)
National Park Service		0.2 (4.4)			0.2 (4.4)		0.03 (0.7)				0.03 (0.7)	4.3 (94.9)		4.3 (94.9)		4.5 (100.0)
Office of Water Research and Technology						0.8 (30.1)	0.8 (30.2)				1.5 (60.3)	0.9 (37.4)		0.9 (37.4)	0.1 (2.3)	2.5 (100.0)
Other agencies		0.03 (2.1)			0.03 (2.1)	0.1 (5.7)	0.01 (0.7)				0.1 (6.4)	1.3 (90.1)		1.3 (90.1)	0.02 (1.4)	1.4 (100.0)
TOTAL	1.2 (9.1)	2.2 (16.2)	0.02 (0.2)		3.4 (25.5)	1.4 (10.5)	0.8 (6.1)				2.2 (16.7)	6.5 (49.1)	1.1 (8.2)	7.6 (57.3)	0.1 (0.6)	13.3 (100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are row percentages.

to housing, social services, law enforcement, tribal planning, and tribal government. Research is conducted to improve Indian business enterprises, job placement, and training.

Program Evaluation

Evaluations are conducted of bureau-sponsored activities: one is examining the effectiveness of the bureau's leadership training program; another is examining all bureau schools to determine the effectiveness of the new "student rights and responsibility" regulations.

Development of Materials

The Albuquerque Resources Center develops curriculum materials geared to Indian children. A current project is developing an early-childhood curriculum for Indians. Another project is developing second-language learning materials.

For Further Information

Write Bureau of Indian Affairs, Department of the Interior, 1951 Constitution Avenue, N.W., Washington, D.C. 20245.

BUREAU OF LAND MANAGEMENT

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,804			358	2,162					2,162
1976	2,095			60	2,155					2,155
1977	1,095			60	1,155					1,155

The Bureau of Land Management is responsible for the conservation, management, and development of 450 million acres of national resource lands. These lands are located primarily in the Far West and Alaska. The bureau also administers mineral resources and mineral leasing connected with acquired lands and the submerged lands of the Outer Continental Shelf.

Research

Social research in the bureau is primarily concerned with assessing the socioeconomic impacts of both onshore and offshore mineral development. Many of the socioeconomic studies are done in connection with environmental impact statements. On the topic of offshore drilling, the bureau is assessing the potential social impacts on adjacent shore areas. During fiscal 1975, the bureau supported several studies geared to developing procedures for gathering social and economic data for use in resource planning.

For Further Information

Write Bureau of Land Management, Department of the Interior, Washington, D.C. 20240.

MINING ENFORCEMENT AND SAFETY ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975			237	1,633	1,870		192		192	2,062
1976				1,210	1,210					1,210
1977				1,210	1,210					1,210

The primary responsibility of the Mining Enforcement and Safety Administration (MESA) is to administer the enforcement provisions of public laws concerning health and safety standards for American miners. MESA also conducts training courses for miners on new, improved safety procedures. In 1977, Congress enacted legislation that shifted the responsibilities of MESA from the Department of the Interior to the Department of Labor. The administration is now called the Mine Safety and Health Administration.

General Purpose Statistics

MESA collects data on employment and production in U.S. coal mining and related industries. Data are collected on the cause, frequency, and manner of accidental injuries and the events or the practices that contribute to the cause of those injuries. These data are used in assessing hazards faced by the mining labor force and in pointing out locations that need more intensive safety programs.

For Further Information

Write Mine Safety and Health Administration, Department of Labor, 4015 Wilson Boulevard, Arlington, Va. 22203.

NATIONAL PARK SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,313			78	3,391		50	85	135	3,526
1976	4,006			136	4,142		50	180	230	4,372
1977	4,172			142	4,314		50	180	230	4,544

The National Park Service administers an extensive system of national parks, monuments, historic sites, and recreation areas. In addition to preserving, managing, and interpreting to the public the land and resources under its administration, the service sponsors programs to identify and recognize natural and historical landmarks, to recover archeological remains, to record significant architectural and engineering works, and to assist in the preservation of nonfederal historical properties. The service cooperates with local schools in the presentation of environmental education programs.

Research

Studies are funded to assist park service officials in the administration of the park system. Research is conducted on such topics as the way people use recreational facilities and the impact that national parks have on nearby communities.

The park service supports several programs in anthropology and archeology. One program conducts research to find things of interest in existing parks and to identify existing park sites for further exploration. Another program concerns archeological investigations and salvage; it is a nationwide, interagency program administered by the park service for the purpose of recovering archeological and historic data and remains that are threatened with destruction or loss as a result of federal or federally assisted land modification projects. The program is administered through contracts with educational and scientific institutions that carry out field investigations and prepare reports on the findings. In addition, three archeological centers and one research center are supported.

For Further Information

See *A Status Report to the Archeological Community* (March 1976), The Interagency Archeological Services Division, or write National Park Service, Department of the Interior, Washington, D.C. 20240.

OFFICE OF WATER RESEARCH AND TECHNOLOGY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,440				2,440			313	313	2,753
1976	2,069				2,069			329	329	2,398
1977	2,150				2,150			367	367	2,517

The Office of Water Research and Technology (OWRT) administers several programs of water resources research and training. One program provides matching funds to University Water Resources Research Institutes (designated by the states) to conduct research toward solving water and water-related problems of the states. Another program consists of funding R&D activities directed toward solving or mitigating water problems related to the mission of the Department of the Interior. OWRT neither maintains its own research laboratories nor performs in-house research; it is strictly an extramural R&D funding agency.

Research

OWRT supports social research that examines the economic, legal, and social implications of water resource development. Studies include: the legal aspects of using water previously used; the socioeconomic aspects of the use of impaired water; the role of public participation in water resource planning; the socioeconomic impact of water resource problems in New Mexico; and economic analysis of land treatment of municipal waste waters.

Dissemination

OWRT supports the Water Resources Scientific Information Center, which disseminates information to the nation's water resources community via project abstracts, catalogs, topical bibliographies, and other summary formats. In this survey, only the dissemination of social research has been included.

For Further Information

Write Office of Water Research and Technology, Department of the Interior, Washington, D.C. 20240.

DEPARTMENT OF THE INTERIOR: OTHER AGENCIES

BUREAU OF OUTDOOR RECREATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	25		150	18	193			55	55	248
1976	20		150	18	188			55	55	243
1977	20		150	18	188			55	55	243

The Bureau of Outdoor Recreation is responsible for promoting, coordinating, and developing effective programs related to outdoor recreation. Many of the activities of the bureau concern "recreation planning," which the bureau felt was not research. A small amount of research, however, is supported concerning the use of recreation areas. The bureau disseminates information on outdoor recreation through a clearinghouse supervised by one of its divisions. Program evaluations are supported by the bureau to ascertain the effectiveness of outdoor recreation programs.

For Further Information

See *Outdoor Recreation Research Register—1973* (1973), Bureau of Outdoor Recreation and Smithsonian Science Information Exchange and *Assessing Demand for Outdoor*

Recreation* (1975), Committee on Assessment of Demand for Outdoor Recreation Resources, National Research Council, National Academy of Sciences, Washington, D.C., or write Bureau of Outdoor Recreation, Department of the Interior, Washington, D.C. 20240.

BUREAU OF RECLAMATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	184				184					184
1976	191				191					191
1977	160				160					160

The Bureau of Reclamation plans, constructs, and operates facilities to irrigate lands, to furnish municipal and industrial or other supplies, and to develop related hydroelectric power and flood controls in 17 western states. Social research projects include: the economics of water management to determine the costs and benefits of various water conservation practices; improvement of reclamation planning by relating projects more directly to economic and social needs and values; and an assessment of the sociocultural impacts of water and coal development.

For Further Information

Write Bureau of Reclamation, Department of the Interior, Washington, D.C. 20240.

OFFICE OF MINERAL POLICY DEVELOPMENT

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	537				537					537
1976	537				537					537
1977	637				637					637

The Office of Mineral Policy Development oversees the development of policies, programs, and legislative initiatives regarding mineral development and conservation, recycling, and substitution. In social research, the office conducts policy analysis on a variety of mineral policy options; many of the studies focus on the economic aspects of mineral policy. The office has supported the development of several econometric models that are being used to evaluate policy options and to assess their potential impacts under various mineral and energy supply-and-demand scenarios. Another study assessed the net social costs of mineral development on communities.

For Further Information

Write Office of Mineral Policy Development, Department of the Interior, Eighteenth and E Streets, N.W., Washington, D.C. 20240.

U.S. FISH AND WILDLIFE SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	59			150	209					209
1976	89			550	639					639
1977	89			285	374					374

The U.S. Fish and Wildlife Service is responsible for wild birds, mammals (except certain marine mammals), inland sport fisheries, and specific fishery research activities. The objective of the service is to ensure maximum opportunity for Americans to benefit from fish and wildlife resources as part of their natural environment. Social research activities include the funding of surveys to determine the attitudes of Americans toward wildlife resources. General purpose statistics include the collection of data on various aspects of fish and wildlife recreation—levels and characteristics of use, expenditures, economic information, etc.

For Further Information

Write U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

14 Department of Justice

The U.S. Department of Justice was the eighth-largest departmental funder of social knowledge production and application in fiscal 1977, obligating more than $60 million—an impressive figure, considering that in 1966 the Justice Department reported no R&D funding. The growth of the department's social knowledge production and application activities has occurred almost entirely in the past decade. Prior to the creation of the Law Enforcement Assistance Administration (LEAA) in 1968, the Department of Justice had little, if any, research capability. Historically, the only knowledge production and application activity of the department has been the Federal Bureau of Investigation's Uniform Crime Reports.

The research capability of the department has continued to grow in recent years. In 1974, the Juvenile Justice and Delinquency Prevention Act created two new R&D agencies in the department: the National Institute of Corrections and the National Institute of Juvenile Justice and Delinquency Prevention. In the attorney general's office, the responsibilities of the Office of Policy and Planning have been increased and the office is expected to fund a limited number of extramural research projects in the future.

LEAA is clearly the dominant knowledge production and application agency within the department. LEAA and its component agencies accounted for nearly 85 percent of the department's total knowledge production and application obligations in fiscal 1977. Within LEAA, the

National Institute of Law Enforcement and Criminal Justice is the largest knowledge production and application funder.

With the creation of LEAA, the Department of Justice became a major funder of third-party research. Since criminal justice and crime control have long been a state and local responsibility, the role of the federal government has been limited. In 1967, the President's Commission on Law Enforcement and Criminal Justice recommended that the federal government should support research and development activities on criminal justice; one year later, LEAA was created. A more detailed discussion of LEAA in general, and the National Institute of Law Enforcement and Criminal Justice in particular, is presented in the final report of the Committee on Research on Law Enforcement and Criminal Justice of the National Research Council, titled *Understanding Crime: An Evaluation of the National Institute of Law Enforcement and Criminal Justice.*

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 14-1 presents the distribution of the department's diverse social knowledge production and application activities. Research, primarily supported by the National Institute of Law Enforcement and Criminal Justice (NILECJ, part of LEAA), is the largest activity. General purpose statistics is the second-largest activity.

The growth in policy formulation demonstrations between fiscal 1975 and fiscal 1977 is accounted for by the creation of the Office of Juvenile Justice and Delinquency Prevention (part of LEAA) and its special emphasis program. The increase in dissemination between fiscal 1975 and fiscal 1977 is accounted for by the creation of the National Institute of Corrections (part of the Bureau of Prisons) and its dissemination activities aimed at correctional officers.

ORGANIZATION OF THE DEPARTMENT

Figure 14-1 presents an organizational chart of the department, with the agencies that fund social knowledge production and application activities indicated. With the exception of the Office of Policy and Planning and the U.S. Parole Commission, all the agencies funding social knowledge production and application are either bureaus or offices.

TABLE 14-1 Department of Justice Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	23.2	28.3	25.0
	(48.7)[a]	(43.8)	(41.0)
Policy formulation demonstrations		0.4	0.3
		(0.5)	(0.4)
Program evaluation	3.4	4.8	4.3
	(7.1)	(7.4)	(7.0)
General purpose statistics	13.8	13.3	12.3
	(28.8)	(20.6)	(20.2)
Total	40.4	46.8	41.8
	(84.6)	(72.4)	(68.7)
Knowledge application			
Policy implementation demonstrations	2.0	11.6	8.7
	(4.2)	(17.8)	(14.2)
Development of materials			
Dissemination	5.4	6.3	10.4
	(11.2)	(9.8)	(17.1)
Total	7.4	17.9	19.1
	(15.4)	(27.6)	(31.3)
TOTAL	47.7	64.7	60.9
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

Table 14-2 lists the agencies in the Department of Justice that fund social knowledge production and application activities. As noted, LEAA is the dominant social knowledge production and application agency in the department. The other six agencies in the Department of Justice support relatively small amounts of social knowledge production and application, yet even the small amount of social knowledge production and application currently funded by these agencies represents an increase over previous expenditures.

POLICY AREAS IN THE DEPARTMENT

The social knowledge production and application activities of the Department of Justice are all classified as law enforcement and justice.

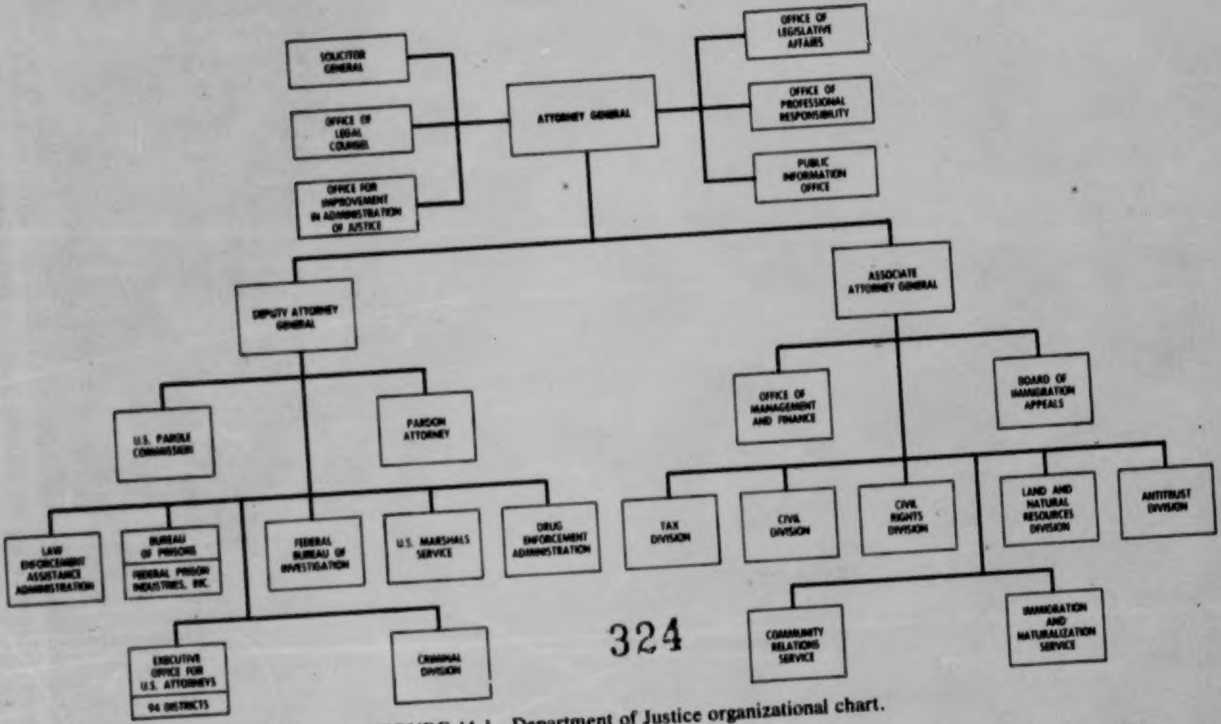
SOLICITOR GENERAL
OFFICE OF LEGAL COUNSEL
OFFICE FOR IMPROVEMENT IN ADMINISTRATION OF JUSTICE
ATTORNEY GENERAL
OFFICE OF LEGISLATIVE AFFAIRS
OFFICE OF PROFESSIONAL RESPONSIBILITY
PUBLIC INFORMATION OFFICE
DEPUTY ATTORNEY GENERAL
ASSOCIATE ATTORNEY GENERAL
U.S. PAROLE COMMISSION
PARDON ATTORNEY
OFFICE OF MANAGEMENT AND FINANCE
BOARD OF IMMIGRATION APPEALS
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
BUREAU OF PRISONS
FEDERAL PRISON INDUSTRIES, INC.
FEDERAL BUREAU OF INVESTIGATION
U.S. MARSHALS SERVICE
DRUG ENFORCEMENT ADMINISTRATION
TAX DIVISION
CIVIL DIVISION
CIVIL RIGHTS DIVISION
LAND AND NATURAL RESOURCES DIVISION
ANTITRUST DIVISION
EXECUTIVE OFFICE FOR U.S. ATTORNEYS
94 DISTRICTS
CRIMINAL DIVISION
COMMUNITY RELATIONS SERVICE
IMMIGRATION AND NATURALIZATION SERVICE

FIGURE 14-1 Department of Justice organizational chart.

TABLE 14-2 Department of Justice Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Law Enforcement Assistance Administration	50.9	Research	Mixed	Mixed
Bureau of Prisons	5.7	Dissemination	Operating agency/R&D agency	Improvement of federal programs/ knowledge for third parties
Federal Bureau of Investigation	2.6	General purpose statistics	Operating agency	Collection of statistics
Departmental Activities[b]	0.8	Research	Policy-making office	Improvement of federal policies
Drug Enforcement Administration	0.7	General purpose statistics	Operating agency	Collection of statistics
Immigration and Naturalization Service	0.1	Research	Operating agency	Improvement of federal programs
TOTAL	60.9			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

[b] Office of Policy and Planning and U.S. Parole Commission.

For Further Information

For a discussion of criminal justice research and development in the federal government, see *Criminal Justice Research and Development*, Task Force on Criminal Justice R&D, U.S. Government Printing Office, Washington, D.C., 1975; *Joint Hearings on the Federal Role in Criminal Justice and Crime Research*, Committee on the Judiciary and Committee on Science and Technology, U.S. House of Representatives, 95th Congress, 1st session, 1977; *Report on the Federal Role in Crime and Justice Research*, Subcommittee on Domestic and International Scientific Planning, Analysis, and Cooperation, Committee on Science and Technology, U.S. House of Representatives, 95th Congress, 1st session, 1977; and *Special Oversight Hearings: The Application of Science and Technology to Crime Control*, Subcommittee on Domestic and International Scientific Planning and Analysis, Committee on Science and Technology, U.S. House of Representatives, 94th Congress, 1st session, 1975, or write Office of Public Information, Department of Justice, Constitution Avenue and Tenth Street, N.W., Washington, D.C. 20530.

BUREAU OF PRISONS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	635				635					635
1976	942				942					942
1977	1,926				1,926			3,805	3,805	5,731

The Bureau of Prisons is responsible for the care and custody of those persons convicted of federal crimes and sentenced to serve time in a federal penal institution. The bureau operates a nationwide system of halfway houses and maximum, medium, and minimum security prisons. The bureau's research and dissemination activities are carried out in the Office of Research and the National Institute of Corrections.

OFFICE OF RESEARCH

The fiscal 1975 and fiscal 1976 research figures above represent obligations by the Office of Research. The fiscal 1977 obligations are split between the office and the institute. The office's research activity is primarily concerned with improved prison practices. Research has been supported on narcotic addiction rehabilitation programs, work release and community treatment centers, and furlough practices of institutions. The office is supporting a longitudinal study of previously released prisoners to determine where future emphasis should be placed.

NATIONAL INSTITUTE OF CORRECTIONS

The National Institute of Corrections was created in 1974 by the Juvenile Justice and Delinquency Prevention Act. Fiscal 1977 was its first full year of operation. The institute is an R&D agency concerned with the development of a more effective, more humane correctional system that will safeguard offenders. The institute was established to provide leadership at the federal level for upgrading a very fragmented state and local correction network.

Because the institute's emphasis is on developing correctional staff capability at the state and local level, a variety of dissemination activities are supported. Training sessions and seminars are funded across the nation in order to implement new correctional management programs; train correctional trainers; facilitate changes in corrections; improve the skills of correctional personnel; and provide training on specialized topics. Another dissemination mechanism is the support of a clearinghouse to serve as a resource to state and local correction agencies. Technical assistance will also be provided via direct and referral services to state and local correctional agencies.

Only a limited amount of research is funded by the institute, which focuses on identifying new approaches to effect correctional changes in manpower, jail operation, the restructuring of field services, and the screening and classification of offenders for level of risk.

For Further Information

See *NIC Status Report: September 7, 1974-October 1, 1975* (October 1975), a publication of the National Institute of Corrections. For information about the Bureau of Prisons, write Bureau of Prisons, 320 First Street, N.W., Department of Justice, Washington, D.C. 20534.

FEDERAL BUREAU OF INVESTIGATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975				2,222	2,222					2,222
1976				2,842	2,842					2,842
1977				2,558	2,558					2,558

The Federal Bureau of Investigation (FBI) is the principal investigative arm of the Department of Justice. It is charged with gathering and reporting facts, locating witnesses, and compiling evidence on matters that involve the federal government. With the exception of statistics collection, no other social knowledge production and application activity was found in the bureau.

General Purpose Statistics

The FBI's Uniform Crime Report program provides a nationwide view of crime statistics. The data are collected through the voluntary cooperation of city, county, and state law enforcement agencies. The purpose of the program is to produce a reliable program of crime statistics for the administrative and operational use of law enforcement agencies, while providing meaningful data for those interested in crime problems. The Uniform Crime Report reports on seven classes of offenses as well as the age, sex, and race of persons arrested, disposition of persons charged, and the value of loss of property. The data are provided by geographic divisions, such as states, standard metropolitan statistical areas, and urban and rural areas. Only reported offenses are included in the data.

In addition to the Uniform Crime Report program, the FBI collects data on the number of law enforcement officers killed or assaulted in the line of duty and on the number of bombings; incidences in which explosive or incendiary devices were used are analyzed.

For Further Information

Write Federal Bureau of Investigation, Department of Justice, Ninth Street and Pennsylvania Avenue, N.W., Washington, D.C. 20535.

LAW ENFORCEMENT ASSISTANCE ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	21,887		3,351	10,800	36,038	2,000		5,360	7,360	43,398
1976	25,626	350	4,770	9,771	40,517	11,550		6,324	17,874	58,391
1977	22,172	250	4,248	9,029	35,699	8,650		6,600	15,250	50,949

The Law Enforcement Assistance Administration (LEAA) assists state and local governments in strengthening and improving law enforcement and criminal justice. LEAA was created by the Omnibus Crime Control and Safe Streets Act of 1968, which was the first major effort of the federal government to provide large-scale financial and technical assistance to state and local governments to improve the criminal justice system and reduce and prevent crime and juvenile delinquency. Table 14-3 lists the component agencies of LEAA that fund social knowledge production and application activities.

TABLE 14-3 Law Enforcement Assistance Administration Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
National Institute of Law Enforcement and Criminal Justice	24.9	Research	R&D agency	Knowledge for third parties
National Criminal Justice Information and Statistics Service	14.0	General purpose statistics	Statistical agency	Collection of statistics
Office of Juvenile Justice and Delinquency Prevention	7.0	Policy implementation demonstrations	Operating agency	Knowledge for third parties
National Institute of Juvenile Justice and Delinquency Prevention[b]	4.5	Research	R&D agency	Knowledge for third parties
Office of Regional Operations[c]	0.5	Technical assistance	Operating agency	Knowledge for third parties
TOTAL	50.9			

[a] See Chapter 2 for a more detailed discussion.

[b] While the National Institute of Juvenile Justice and Delinquency Prevention is technically under the Office of Juvenile Justice and Delinquency Prevention, they have been presented and discussed separately in this chapter.

[c] The Office of Regional Operations (ORO) coordinates the implementation of the LEAA block grant program. ORO provides technical assistance to the state planning agencies and regional planning units. A small part of those technical assistance activities were judged to be knowledge based and thus included in our survey. Due to its small size, no detailed discussion is presented concerning the OROS.

LEAA supports a wide range of activities aimed at assisting state and local governments to reduce and prevent crime: grants to state and local governments for the development and implementation of comprehensive plans; matching grants for action programs to improve and strengthen law enforcement; aid for correctional institutions and programs; technical assistance to all levels of state and local government; research, evaluation, and technology transfer activities; educational assistance and special training programs; data systems and statistical services; and juvenile justice and delinquency programs. Of these activities, however, only a portion are knowledge production and application activities.

LEAA is composed of national programs and the block grant program. The national programs are directed by the LEAA administrator and consist of several program offices; among them are the National Institute of Law Enforcement and Criminal Justice. LEAA's social knowledge production and application activities are funded primarily by the national programs.

With the exception of $500,000 in technical assistance activities that were judged to be knowledge-based, no knowledge production and application activities were found in the block grant program. The block grant program distributes funds to the states in lump sums on the basis of populations. Funds are allocated to each state contingent upon its annual comprehensive state plan, which must be approved by LEAA before funds are disbursed. The funds are subsequently distributed to the various state and local governments through the State Planning Agencies that administer the LEAA program in individual states.

LEAA is an example of a third-party funding agency (see Table 14-3). Over 70 percent of LEAA's funds goes toward producing knowledge for third parties. The remainder of the agency knowledge production and application funds are for the collection of statistics, which are frequently used by third parties as well.

For Further Information

Write Law Enforcement Assistance Administration, Department of Justice, 633 Indiana Avenue, N.W., Washington, D.C. 20531.

NATIONAL CRIMINAL JUSTICE INFORMATION AND STATISTICS SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5,000			10,800	15,800					15,800
1976	5,000			9,771	14,771					14,771
1977	5,000			9,029	14,029					14,029

The National Criminal Justice Information and Statistics Service (NCJIS) is responsible for generating criminal justice data at the national level. Previously, several agencies of the federal government were responsible for providing criminal justice statistics. The legislation creating LEAA gave it the responsibility for maintaining a criminal justice statistics program.

Research

NCJIS also supports activities that the Study Project felt were more appropriately labeled research than statistics. Studies have been funded on the self-reporting of crime, social indicators of personal harm, and the development of "seriousness" scales for crimes based on public perceptions. The most well-known activity of the NCJIS, which we have classified as research, is the National Crime Panel Victimization Survey, the purpose of which is to measure continuously the amount and nature of the assaultive violence and common theft in the United States, regardless of whether the crimes are reported to the police. The study includes a national sample of households and businesses that are interviewed monthly and independent city samples that are collected once to provide annual city-level estimates. The survey provides measures of the incidence of serious crime and the characteristics of victims and events. *Surveying Crime*, by the National Research Council's Committee on National Statistics, Panel for Evaluation of Crime Surveys, published by the National Academy of Sciences, is an evaluation of the National Crime Surveys series.

General Purpose Statistics

Since its creation, NCJIS has developed over a dozen periodic statistical series that cover all aspects of the criminal justice system.

CRIMINAL JUSTICE SYSTEM-WIDE STATISTICAL PROGRAMS While many of the NCJIS statistics are limited to a specific sector of the criminal justice system, the agency supports several programs that transcend sectional boundaries. The most prominent activities are the Directory of Criminal Justice Agencies and the Annual Survey of Criminal Justice Expenditures. LEAA also sponsors a nationwide survey of the characteristics of criminal justice employees. In addition, a source book of criminal justice statistics is prepared by NCJIS.

CORRECTIONAL STATISTICS LEAA sponsors several programs that produce nationwide correctional statistics, one of which is the National Prisoner Statistics (NPS) program. NPS is one of the federal government's oldest continuing statistical series and has been expanded to include several additional surveys and censuses. Data are now collected on: the number and background of jail inmates; prison population movements, providing gross trends of persons moving in and out of the system; characteristics of admission and release data; census of correction facilities; uniform parole reports; and juvenile detention and correctional facilities data.

JUDICIAL STATISTICS LEAA has completed a feasibility study to develop a national data correction program that will describe certain aspects of state and local courts. A publication was produced describing courts and summary statistics on the organization and types of state and local courts and their jurisdictions. LEAA hopes to provide periodically updated statistics on courts to include court caseloads and the numbers of dispositions by types and trial outcomes.

The principal periodic reports of NCJIS are presented in Table 14-4.

For Further Information

Write National Criminal Justice Information and Statistics Service, Department of Justice, Room 504, Safeway Building, 521 Twelfth Street, N.W., Washington, D.C. 20530.

TABLE 14-4 Principal Periodic Reports of the Law Enforcement Assistance Administration National Criminal Justice Information and Statistics Service

- **National Crime Panel Survey**
  - **San Jose Methods Test of Known Victims of Crime**
  - **Report of the Dayton–San Jose Pilot Survey of Victimization**
  - **Report on National Crime Panel Surveys of Crime in Atlanta, Baltimore, Cleveland, Dallas, Newark, Portland, and Saint Louis**
  - **Report on National Crime Panel Surveys of Crime in Chicago, Detroit, Los Angeles, New York, and Philadelphia**
  - **Criminal Victimization in the United States: January–June 1973**
- **Expenditure and Employment Data for the Criminal Justice System (Annual)**
- **Sourcebook of Criminal Justice Statistics (Annual)**
- **Juvenile Detention and Correctional Facilities (Annual)**
- **Jail Statistics (Periodic)**
- **Directory of Criminal Justice Agencies (Periodic)**
- **Court Statistics (Periodic)**

SOURCE: Statistical Policy Division, Office of Management and Budget, *Statistical Services of the United States Government, 1975*, U.S. Government Printing Office, Washington, D.C., 1975.

NATIONAL INSTITUTE OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1976	3,200	350	1,700		5,250	500		660	1,160	6,410
1977	2,125	250	1,200		3,575	400		560	960	4,535

In enacting the Juvenile Justice and Delinquency Prevention Act of 1974, Congress enlarged LEAA's mandate by establishing the Office of Juvenile Justice and creating a second research institute, the National Institute of Juvenile Justice and Delinquency Prevention (NIJJDP) within the office and the LEAA structure. Fiscal 1976 was the first year of the institute's operation, which is charged with conducting research, demonstrations, and evaluation and training projects on topics of relevance to juvenile involvement in the criminal justice system. NIJJDP is responsible for the development of standards for the administration of juvenile justice at the federal, state, and local levels. Since the creation of the institute, the National Institute of Law Enforcement and Criminal Justice (NILECJ) has largely withdrawn from the sponsorship of research on juvenile delinquency.

Research

NIJJDP supports a wide range of research relating to all aspects of juvenile justice and delinquency. The institute has supported projects on youth gang violence, intervention programs designed to reduce crime in schools, the relationship between delinquency and learning disabilities, and the impact of the legal process and formal legal sanctions on juvenile delinquents. Other studies have looked at the diversion of offenders from the juvenile justice system and the reduction of serious crime committed by juveniles.

Program Evaluation

The institute has undertaken several cooperative efforts with the National Evaluation Program in NILECJ to evaluate juvenile justice programs. Evaluation projects have examined youth service bureaus, the impact of alternatives to juvenile incarceration, delinquency prevention projects, alternatives to custodial detention, police juvenile units, and juvenile court intake units.

For Further Information

See *Programs to Prevent Juvenile Delinquency* (November 1976), a publication of NIJJDP, or write National Institute of Juvenile Justice and Delinquency Prevention, Department of Justice, 633 Indiana Avenue, N.W., Washington, D.C. 20531.

NATIONAL INSTITUTE OF LAW ENFORCEMENT AND CRIMINAL JUSTICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	16,887		3.351		20.238	2,000		4.910	6.910	27.148
1976	16,426		3,070		19.496	2.250		5.184	7.434	26,930
1977	14,047		3,048		17.095	2.250		5.540	7.790	24.885

The National Institute of Law Enforcement and Criminal Justice (NILECJ) is the research and development arm of the Law Enforcement Assistance Administration. The institute supports R&D programs and projects to improve and strengthen the law enforcement and criminal justice systems. NILECJ also evaluates and disseminates the results of the various programs supported with LEAA funds. In addition, the institute acts as a national and international clearinghouse for the exchange of criminal justice information.

Research

Research is the largest activity of NILECJ. Social research is funded on five topics: community crime prevention, police, courts, corrections, and evaluation. The advanced technology program was excluded from this survey because it is largely technological. The education and manpower program in the Office of Research was also excluded. The following research programs support social research.

COMMUNITY CRIME PREVENTION This research is designed to reduce both the incidence and fear of crime. To accomplish this goal, the institute devised a comprehensive strategy that involves physical and urban design, community organization and citizen action, and new criminal justice practices and procedures. Projects have been funded on: environmental design, victimization, forcible rape, robbery, fencing, gambling, white collar crime, and weapon ownership and use. The program seeks to address the needs and problems of citizens as both victims of crime and clients of the criminal justice system.

POLICE The institute supports a wide range of research activities on police and law enforcement. Research projects have been funded on: patrol tactics, discipline, corruption, the exercise of discretion, performance measures, criminal investigation, and the role of unions in police management. The emphasis of the program is on analyzing alternatives for improving criminal investigation, procedures, and services and on strengthening police management practices.

COURTS The institute court program has continually focused on development of new procedures and other mechanisms to reduce court delay and increase efficiency. Emphasis has been placed on improving prosecutorial and judicial consistency as well as developing performance measures for courts. Research has been funded on: plea bargaining, sentencing disparities, lower court management, prosecutorial decision making, and sentencing. The court program also evaluates the impact of current laws and practices.

CORRECTIONS The corrections program has emphasized studies on the reintegration of offenders into the community, improvement of operations management systems, and research on special offender types. Basic research has been supported to increase the knowledge base on which future needs will be measured and policy decisions made. Other research includes: strategies for treatment, alternatives to incarceration, opportunities for prisoners, parole, and the effectiveness of deterrence.

EVALUATION RESEARCH While the Office of Evaluation operates this program, the type of studies funded was more appropriately classified research than program evaluation. The evaluation research program is attempting to develop methods for assessing the effectiveness of the criminal justice system. Three activities are emphasized:

- methodological developments to obtain more sensitive and reliable evaluation methodologies, including improved mathematical techniques for analyzing and predicting crime rates.
- methodological standardization that will develop and test systems of objective measures for assessing changes in the performance of the total criminal justice system.
- deterrence effectiveness studies that will develop methodologies for assessing, with required sensitivity and reliability, the deterrent effectiveness of various crime prevention and control efforts.

Program Evaluation

While evaluation research was classified as research, there are several NILECJ programs that were appropriately categorized as program evaluation. The first is the National Evaluation Program, which sponsors evaluation studies of specific approaches and programs already operating within the criminal justice system, including those supported under the LEAA block grant program.

Another evaluation program examines LEAA programs. Evaluations of the LEAA High Impact and Pilot Cities programs have been completed. Another evaluation has examined the effectiveness of the implementation of criminal justice standards and goals in participating states. The results of these program evaluations are intended to aid state and local decision makers who allocate resources for program implementation, LEAA planners, and others concerned with criminal justice evaluations. Other evaluations have examined the management and performance of LEAA assistance programs and several individual LEAA-funded projects.

Policy Implementation Demonstrations

NILECJ supports demonstration projects, now called field tests, to showcase the most promising criminal justice techniques. Not only can people read and hear about these projects, but they can also see them in action, meet the clients, and talk with project staff. Field test projects that are supported in several cities help to broaden awareness, increase credibility, encourage investigation, and stimulate technology transfer. Field test projects have been funded on the following topics.

COMMUNITY-BASED CORRECTIONS This project demonstrates effective alternatives to traditional incarceration through four basic services: a pretrial release screening unit, a pretrial community-supervised release program, a countywide administration probation unit, and a community correction facility.

IMPROVED LOWER-COURT CASE HANDLING The field tests build upon and combine a number of procedures to minimize formal processing of minor offenders and focus attention on the high-risk misdemeanant.

FULL-SERVICE NEIGHBORHOOD TEAM POLICING These projects combine the institute's team policing guidelines with the concept of full-service police operation. Full-service policing recognizes the variety of skills demanded of the police officer.

FAMILY CRISIS INTERVENTION These projects teach police officers to deal effectively and safely with family disturbances, one of the policeman's most hazardous assignments.

Dissemination

The institute has three major programs of dissemination.

EXEMPLARY PROJECTS This program systematically identifies outstanding criminal justice projects throughout the country, verifies their accomplishment, and disseminates information about them. Descriptive program brochures and detailed instructional manuals are prepared on each project selected as exemplary, summarizing the project and highlighting the results and particular innovative program elements. Manuals provide considerable detail on operating methods, budget, staffing, training requirements, potential problems, and measures of effectiveness. Examples of exemplary projects include a community-based correction project in Des Moines, Iowa; a citizen dispute settlement service in Columbus, Ohio; neighborhood youth resource centers in Philadelphia, Pennsylvania; and a public defender service in Washington, D.C.

PRESCRIPTIVE PACKAGES Whereas exemplary projects focus on single outstanding projects, prescriptive packages focus on promising innovative approaches. The most promising new techniques on a given criminal justice topic are compiled in a single handbook presenting model program guidelines; the guidelines are based on a synthesis of the most successful operating practices and the best available information on that particular topic. Prescriptive packages have focused on prosecutor case screening; residential treatment in lieu of incarceration; correctional programs for women; the use of paraprofessionals in probation and parole; solutions to school violence problems; neighborhood team policing; improving police/community relations; and grievance mechanisms in correctional institutions.

NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE INTERNATIONAL CLEARINGHOUSE In offering a wide range of reference and referral services to criminal justice personnel, the National Criminal Justice Reference Service serves as a federal resource center for criminal justice researchers and practitioners. The service has the following features: selective notification of information to individuals registered with the service in any of 68 subjects; personal reference assistance; document retrieval index; and library services.

For Further Information

See *Directory of Grants, Contracts and Interagency Agreements 1969-1974* (December 1974), compiled by James M. Edgar, Reference Services, National Criminal Justice Reference Service; *National Institute of Law Enforcement and Criminal Justice: Annual Report FY 1975* (December 1975); and *Program Plan FY 1976: Research, Evaluation, Technology Transfer* (no date), which are publications of NILECJ, or write National Institute of Law Enforcement and Criminal Justice, Department of Justice, 633 Indiana Avenue, N.W., Washington, D.C., 20531.

OFFICE OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1976	1,000				1,000	8,800			8,800	9,800
1977	1,000				1,000	6,000			6,000	7,000

The Office of Juvenile Justice and Delinquency Prevention (OJJDP) was created by the Juvenile Justice and Delinquency Prevention Act of 1974, which also created the National Institute of Juvenile Justice.

OJJDP has three major operational responsibilities: (1) coordinating all federal juvenile delinquency efforts; (2) funding special emphasis grants designed to target its priorities and provide focus for the national effort; and (3) providing technical assistance to special emphasis grantees and state and local agencies and individuals. Fiscal 1976 was the first operational year of the office.

Research

The office funds a limited amount of evaluation research, which examines projects being supported by the special emphasis program. The special emphasis program has been developed within a research framework. The office has funded evaluation research projects on many of the priority topics that receive special emphasis funding. (Special emphasis projects are discussed below.)

Policy Implementation Demonstrations

The office supports a Special Emphasis Prevention and Treatment Program, which is designed to develop and implement new approaches, techniques, and methods concerning juvenile delinquency programs. Project grants are made to foster promising and innovative new approaches. After having "demonstrated" new approaches, OJJDP hopes that these programs will be adopted in other jurisdictions. Examples of Special Emphasis Projects follow.

DEINSTITUTIONALIZATION OF STATUS OFFENDERS This program supports innovative projects that demonstrate ways to keep juvenile status offenders out of correctional and detention facilities. Status offenders are juveniles whose offenses would not be considered criminal if committed by adults, e.g., truancy. The goal of the program is to halt the incarceration of juvenile status offenders by developing community-based resources to replace correctional institutions.

DIVERSION OF YOUTH FROM THE JUVENILE JUSTICE SYSTEM This program develops and demonstrates effective means of diverting juveniles from involvement with the traditional juvenile justice system at the critical point of penetration. The projects focus on specific alternatives to criminal justice processing, such as the provision of social services to juvenile offenders. The diversion process is intended to make use of the wide range of community resources for youth.

PROGRAMS TO PREVENT JUVENILE DELINQUENCY This program develops and implements new approaches to juvenile justice delinquency prevention through improving the capacity of agencies and organizations serving youth. Projects are funded to implement new programs that might provide social, cultural, educational, vocational, or health services to young people.

Other special emphasis programs have focused on the following issues: reduction of serious juvenile crimes in schools, prevention of delinquency by correcting learning disabilities, reduction of serious crimes through programs for institutionalized violent offenders, prevention of delinquency by improving neighborhoods and their services, and reduction of serious crimes committed by juvenile gangs.

For Further Information

Write Office of Juvenile Justice and Delinquency Prevention, Department of Justice, Room 442, Indiana Building, 633 Indiana Avenue, N.W., Washington, D.C. 20531.

DEPARTMENT OF JUSTICE: OTHER AGENCIES

DRUG ENFORCEMENT ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975				732	732					732
1976				735	735					735
1977				738	738					738

The Drug Enforcement Administration is the investigative, intelligence, law enforcement, and regulatory agency of the Department of Justice responsible for suppressing illicit traffic in narcotics and dangerous drugs. The agency conducts no social research but collects general purpose statistics on drug abuse incidents. Project DAWN is the largest and most comprehensive data collection concerned with abuse statistics.

For Further Information

Write Drug Enforcement Administration, Department of Justice, 1405 I Street, N.W., Washington, D.C. 20537.

IMMIGRATION AND NATURALIZATION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1976	1,025				1,025					1,025
1977	100				100					100

The Immigration and Naturalization Service is responsible for administering immigration and naturalization laws relating to the admission, exclusion, deportation, and naturalization of aliens. Little social research is conducted by the service, as its primary R&D concern is determining what existing or emerging technologies can assist the service in its tasks. In fiscal 1976, however, it funded a large social research study on illegal aliens. In fiscal 1977, a much smaller study of aliens was funded.

For Further Information

Write Immigration and Naturalization Service, Department of Justice, 425 I Street, N.W., Washington, D.C. 20536.

DEPARTMENT OF JUSTICE: DEPARTMENTAL ACTIVITIES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	702		28		730					730
1976	749		32		781					781
1977	784		35		819					819

There are two offices in the Department of Justice that perform social research. The Office of Policy and Planning, under the immediate direction of the attorney general, is responsible for the initiation and development of plans for improving the effectiveness and fairness of the federal system of justice, particularly the federal system of criminal justice. The office has performed policy analysis on sentencing provisions and sentencing alternatives, victim compensation, gun control, and white-collar crime.

The Office of Research within the Board of Parole performs in-house research on various aspects of the parole process. The office assesses the effectiveness of the board's procedure and conducts research on: parole decision making, the effect of representation at parole hearings, the feasibility of developing explicit sentencing standards or guidelines, administrative review of parole decisions, and the relationship between time served and release performance.

For Further Information

Write Department of Justice, Constitution Avenue and Tenth Street, N.W., Washington, D.C. 20530.

15

Department of Labor

In fiscal 1977, the Department of Labor was the fourth-largest departmental funder of social knowledge production and application in the federal government. Nearly 60 percent of the department's knowledge production and application obligations went for the collection and analysis of general purpose statistics, the major funder of which is the Bureau of Labor Statistics.

While the department ranks fourth in total knowledge production and application due to its large statistical expenditures, it stands seventh in total research expenditures among federal departments. The Employment and Training Administration has the most well-known research program—which is discussed in detail in the National Research Council report, *Knowledge and Policy in Manpower.*

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 15-1 presents the dis[illegible]bution of the department's social knowledge production and ap[illegible]on activities. As noted above, general purpose statistics is the [illegible]gest single knowledge production and application activity—accounting for obligations of more than $74 million in fiscal 1977. The second-largest category, research, had obligations of $22 million in fiscal 1977.

TABLE 15-1 Department of Labor Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	17.1	19.4	22.4
	(20.0)[a]	(18.1)	(17.4)
Policy formulation demonstrations	4.3	3.3	3.6
	(5.1)	(3.1)	(2.8)
Program evaluation	0.2	1.5	1.2
	(0.3)	(1.4)	(1.0)
General purpose statistics	50.7	67.9	74.1
	(59.5)	(63.6)	(57.6)
Total	72.4	92.1	101.3
	(84.9)	(86.3)	(78.6)
Knowledge application			
Policy implementation demonstrations	0.7	2.4	14.8
	(0.8)	(2.2)	(11.5)
Development of materials	5.5	5.7	6.2
	(6.5)	(5.4)	(4.8)
Dissemination	6.7	6.5	6.5
	(7.8)	(6.1)	(5.1)
Total	12.9	14.6	27.5
	(15.1)	(13.7)	(21.4)
TOTAL	85.3	106.8	128.8
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

ORGANIZATION OF THE DEPARTMENT

Figure 15-1 is an organizational chart for the Department of Labor. As the chart shows, social knowledge production and application activities are conducted by all the operating components of the department.

Table 15-2 lists the agencies in the department that fund social knowledge production and application activities. The Bureau of Labor Statistics is the largest; the second-largest is the Occupational Safety and Health Administration (OSHA). OSHA's largest knowledge production and application activity in fiscal 1977 was a new program of policy implementation demonstrations, which sought to encourage voluntary compliance by industries to OSHA safety and health regulations.

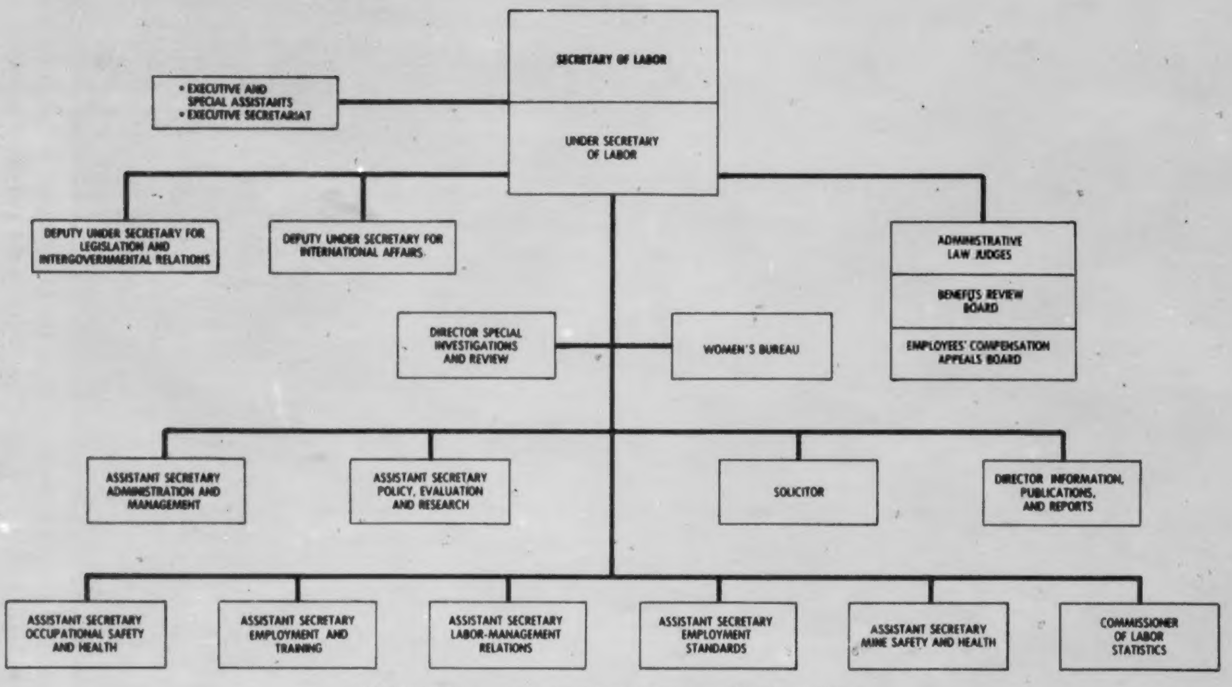
SECRETARY OF LABOR
• EXECUTIVE AND SPECIAL ASSISTANTS
• EXECUTIVE SECRETARIAT
UNDER SECRETARY OF LABOR
DEPUTY UNDER SECRETARY FOR LEGISLATION AND INTERGOVERNMENTAL RELATIONS
DEPUTY UNDER SECRETARY FOR INTERNATIONAL AFFAIRS
ADMINISTRATIVE LAW JUDGES
BENEFITS REVIEW BOARD
EMPLOYEES' COMPENSATION APPEALS BOARD
DIRECTOR SPECIAL INVESTIGATIONS AND REVIEW
WOMEN'S BUREAU
ASSISTANT SECRETARY ADMINISTRATION AND MANAGEMENT
ASSISTANT SECRETARY POLICY, EVALUATION AND RESEARCH
SOLICITOR
DIRECTOR INFORMATION, PUBLICATIONS, AND REPORTS
ASSISTANT SECRETARY OCCUPATIONAL SAFETY AND HEALTH
ASSISTANT SECRETARY EMPLOYMENT AND TRAINING
ASSISTANT SECRETARY LABOR-MANAGEMENT RELATIONS
ASSISTANT SECRETARY EMPLOYMENT STANDARDS
ASSISTANT SECRETARY MINE SAFETY AND HEALTH
COMMISSIONER OF LABOR STATISTICS

FIGURE 15-1 Department of Labor organizational chart.

TABLE 15-2 Department of Labor Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Bureau of Labor Statistics	62.7	General purpose statistics	Statistical agency	Collection of statistics
Occupational Safety and Health Administration	38.3	Diversified	Operating agency	Knowledge for third parties
Employment and Training Administration	17.0	Diversified	Operating agency	Improvement of federal programs
Employment Standards Administration	5.8	Research	Operating agency	Improvement of federal policies
Labor Management Services Administration	2.8	Research	Operating agency	Knowledge for third parties
Office of the Secretary	1.3	Research	Policy-making office	Improvement of federal policies
Bureau of International Labor Affairs	1.0	Research	Policy-making office	Improvement of federal policies
TOTAL	128.8			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

The goal or audience of the department's social knowledge production and application activities is quite diverse. In addition to collecting statistics, the department aims at improving federal policy and programs and providing knowledge for third parties. In the case of OSHA and the Labor Management Services Administration, the department attempts to provide information for use by both management and workers in various industries.

POLICY AREAS

Table 15-3 presents the agencies in the Department of Labor by policy area. Nearly three-fourths of the department's social knowledge pro-

TABLE 15-3 Department of Labor Agencies: Social Knowledge Production and Application Activities, by Policy Areas (fiscal 1977, $millions)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
Bureau of International Labor Affairs									1.0 (100.0)	1.0 (100.0)						1.0 (100.0)
Bureau of Labor Statistics			62.7 (100.0)		62.7 (100.0)											62.7 (100.0)
Employment Standards Administration			5.5 (94.0)		5.5 (94.0)	0.3 (6.0)					0.3 (6.0)					5.8 (100.0)
Employment and Training Administration			17.0 (100.0)		17.0 (100.0)											17.0 (100.0)
Labor Management Services Administration			2.8 (100.0)		2.8 (100.0)											2.8 (100.0)
Occupational Safety and Health Administration	31.7 (82.8)		6.3 (16.5)		38.0 (99.2)	0.3 (0.8)					0.3 (0.8)					38.3 (100.0)
Office of the Secretary			1.3 (100.0)		1.3 (100.0)											1.3 (100.0)
TOTAL	31.7 (24.6)		95.5 (74.1)		127.2 (98.7)	0.6 (0.5)				1.0 (0.8)	1.6 (1.3)					128.8 (100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are row percentages.

duction and application obligations was in the policy area of employment and training. The second-largest category, accounting for almost all the remaining one-fourth of the department's obligations, was health. OSHA was categorized as being primarily concerned with environmental health.

BUREAU OF INTERNATIONAL LABOR AFFAIRS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,090				1,090					1,090
1976	900		80		980					980
1977	900		85		985					985

The Bureau of International Labor Affairs is responsible for overseeing all international labor programs and foreign economic programs in the Department of Labor. The bureau participates in the formulation of international economic policy and is responsible for participating in trade negotiations and administering trade adjustment assistance for workers.

Research

The Office of Foreign Economic Research within the bureau conducts research on the effects of changes in U.S. international economic policy on the economic status of American workers. Such policies include changes in the level of trade barriers and in the tax treatment of foreign income earned by U.S. corporations. The objective of the research program is to assist the Department of Labor in contributing to the formulation of foreign trade and investment policy. Much of the office's research is performed extramurally.

Research is currently being conducted on the nature and extent of multinational corporation influence on U.S. employment. This study is attempting to determine the pattern of operations leading American firms to operate abroad; the relationship of these patterns to their employment in the United States; and consequent displacement or changes in labor market structures. Other bureau research projects are looking at:

- the merits of alternative types of trade adjustment assistance;
- wage rate comparisons for export and domestic industries;
- the relationships of foreign trade to labor union membership;
- the role of agriculture in multilateral trade negotiations; and
- price behavior in U.S. industries and the benefits of trade liberalization.

For Further Information

Write Bureau of International Labor Affairs, Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

BUREAU OF LABOR STATISTICS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	733			40,849	41,582					41,582
1976	620			54,884	55,504					55,504
1977	743			61,959	62,702					62,702

The Bureau of Labor Statistics (BLS) is responsible for the department's economic and statistical activities and is the government's principal fact-finding agency in the field of labor economics. Data are collected from workers, business executives, and federal and state agencies on a voluntary basis; the bureau's statistical programs have grown out of the needs of these groups as well as those of Congress and federal and state governments.

Research

As in other statistical agencies, methodological research is conducted on conceptual and measurement problems faced by the bureau. Research was conducted during fiscal 1976 to assess and improve measures of wage levels and rates of change. Another project tested alternative collection techniques for the employment cost index. Alternative conceptual frameworks for industrial price data are also being examined.

General Purpose Statistics

Statistics are collected in the following areas (fiscal 1977 obligations are in parentheses).

MANPOWER AND EMPLOYMENT ($27.5 million) Monthly estimates are made of the U.S. labor force, employment and unemployment, and selected characteristics of the labor force. Monthly data are prepared and published on employment, hours of work, and earnings by industry for the United States and for each state. Projections are prepared on manpower requirements and supply, including detailed studies of the outlook for specific occupations.

PRICES AND COST OF LIVING ($15.5 million) The Consumer Price Index and the Wholesale Price Index are compiled and published monthly. Special analytical studies of price changes are undertaken.

WAGES AND INDUSTRIAL RELATIONS ($10.4 million) Data are collected and analyzed on occupational wages and salaries in major labor markets and industries. Monthly information is compiled on work stoppages and wage developments. Reports and studies are issued on fringe benefits, expenditures, collective bargaining agreements, trade union organizations, and private welfare and pension plans.

PRODUCTIVITY AND TECHNOLOGY ($2.4 million) Analyses are prepared on output per man hour and unit labor cost trends for the entire U.S. economy and for specific industries. Studies are conducted on automation and other technological changes and the adjustment to such changes. Studies are made of labor requirements for selected types of construction.

ECONOMIC GROWTH ($0.5 million) Long-range projections of U.S. economic growth are prepared. Special economic and social studies are undertaken and reports prepared.

REVISION OF CONSUMER PRICE INDEX ($5.6 million) The Consumer Price Index measures average changes in the retail prices of selected goods, rents, and services. A revision to modernize the index is under way to meet the demands for its use in present day domestic, economic, and industrial planning.

The principal periodic reports of the bureau are presented in Table 15-4.

TABLE 15-4 Principal Periodic Reports of the Bureau of Labor Statistics

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Monthly Labor Review (Monthly Magazine)
Employment and Earnings (Monthly)
Chartbook on Prices, Wages, and Productivity (Monthly)
Employment and Wages (Quarterly)
Geographic Profile of Employment and Unemployment (Annual)
Occupational Wage and Supplementary Benefits Surveys
Employee Compensation and Payroll Hours
Annual Earnings and Employment Patterns (Annual)
Digest of Selected Pension Plans
Digest of Selected Health and Insurance Plans
Municipal Government Wage Studies
Current Wage Developments (Monthly)
Wage and Hours (Annual)
Work Stoppages (Monthly)
Directory of National Unions, Employee Associations (Biennial)
Major Collective Bargaining Agreements
Characteristics of Agreements Covering 1,000 Workers or More (Annual)
Occupational Injuries and Illnesses by Industry (Annual)
Indexes of Output per Man-Hour for Selected Industries (Annual)
Studies of Labor Requirements for Construction (Annual)
Productivity and Costs (Quarterly and Annual)
Wholesale Prices and Price Indexes (Monthly)
Tuesday Spot Market Price Indexes and Prices (Weekly and Monthly Summary)
Consumer Price Index Detailed Report (Monthly)
Export and Import Price Indexes (Quarterly)
Handbook of Labor Statistics (Annual)
Major Programs (Annual)

SOURCE: Statistical Policy Division, Office of Management and Budget, *Statistical Services of the United States Government, 1975*, U.S. Government Printing Office, Washington, D.C., 1975.

For Further Information

See *BLS Handbook of Methods*, available from the U.S. Government Printing Office, Washington, D.C., or write Bureau of Labor Statistics, Department of Labor, 441 G Street, N.W., Washington, D.C. 20212.

EMPLOYMENT STANDARDS ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,240		190	310	3,740					3,740
1976	5,433		320	386	6,139					6,139
1977	5,450			348	5,789					5,798

The Employment Standards Administration (ESA) is responsible for administering and directing programs of employment standards dealing with: minimum wage and overtime standards; equal pay; discrimination in employment; promotion of women's welfare; and worker's compensation programs for federal and certain other employees.

Research

ESA is responsible for conducting research to determine the economic and social effects of existing or proposed labor standards legislation and administrative actions. As part of this research program, the role of legislation is appraised in relation to broad economic and social goals. In addition, special studies are undertaken to determine the effects of various policies and procedures on problems affecting equal employment opportunities.

The largest research project currently under way is a study of the economic impact and effectiveness of the 1974 amendments to the Fair Labor Standards Act. These amendments extend fair labor standards coverage to various segments of the population that were not previously covered while providing exemptions from federal minimum wage and/or overtime provisions for a broad range of activities and employments. Congress mandated that ESA study the exempted activities to provide the data necessary to decide whether the exemptions should be continued, modified, or eliminated.

Other ESA research projects include a study of the average number of hours in tours of duty for law enforcement and fire protection personnel. The findings of the study will provide the basis for determining the standards for overtime hours applicable to police and fire personnel. Another study examined the effect of making the existing minimum wage cover babysitters for working parents. Data were collected on changes in child care arrangements as a result of making the federal minimum wage applicable to babysitters. Research has also been conducted on the ability of the economy to absorb increases in the minimum wage.

General Purpose Statistics

The agency collects, compiles, summarizes, analyzes, and publishes statistics on the findings of wage-hour investigations and other compliance actions. Prevailing wage rates for the construction industry are published by area, industry, and job classification.

For Further Information

Write Employment Standards Administration, Department of Labor, Room C-4331, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

EMPLOYMENT AND TRAINING ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	6,758	4,318	58	3,967	15,101	708	337	665	1,710	16,811
1976	5,620	2,515	680	6,671	15,486	2,400	20	522	2,942	18,428
1977	4,520	2,750	700	5,682	13,652	2,800	20	522	3,342	16,994

The Employment and Training Administration (ETA), formerly the Manpower Administration, is responsible for carrying out a variety of employment and training programs. These programs include the U.S. Employment Service, the Work Incentive Program (WIN), the Unemployment Insurance Service, apprenticeship and training programs, and programs authorized under the Comprehensive Employment and Training Act (CETA).

The major research arm of ETA is the Office of Research and Development (ORD). ORD has several funding programs:

○ *Research projects* are designed to yield knowledge about basic manpower problems and point to their solution on a short- or long-range basis. This program supports basic and applied research on a wide variety of manpower issues and problems.

- *Special research* grants are provided to colleges and universities to alleviate critical shortages of manpower specialists to strengthen the manpower capability of those institutions. Special grants include: manpower institutional grants to train manpower research talent and support systematic programs of research on local and regional manpower problems (training support is excluded from social knowledge production and application totals); small grants to universities in support of doctoral dissertation research in the manpower field; and small grants to postdoctoral specialists in support of innovative studies and the development of new methods to solve manpower problems or contribute to policy formulation.
- *Development programs* that are experimental and demonstrative in nature are undertaken to initiate new techniques and approaches or to determine the effect and applicability of program innovations. The purpose of these programs is to develop and test ways in which operating programs might more effectively solve significant manpower problems. These projects have been categorized as either policy formulation demonstrations or policy implementation demonstrations.

Research

The research activities of ORD are aimed at producing information needed to deal with unemployment and other problems of manpower resources. Areas of research include the following.

MANPOWER PROGRAM PLANNING AND ADMINISTRATION This program includes research on: Comprehensive Employment and Training Act (CETA) agency planning; labor market and other information systems; manpower agency capabilities; and research and development, evaluation, and planning. Specific projects include:

- Transition to CETA in Ohio: An Analysis of Implementation;
- Impact of Manpower Training Programs on Minorities and Women; and
- A Study of On-line Use of Job Information in Employment Service Local Offices.

MANPOWER PROGRAMS AND THEIR SPECIFIC POPULATIONS This program focuses on the following specific populations: alcoholics and drug users; apprentices; engineers; prisoners, offenders, and ex-offenders; racial and ethnic minorities; veterans; welfare recipients and other unemployed; and women, youth, and other groups. Specific projects include:

- Retraining Problem Drinkers on the Job;
- Labor Market Experience for Engineers during Periods of Changing Demand;
- An Assessment of the Manpower Effort in the Criminal Justice and Corrections Setting; and
- A Study of Unemployment Insurance Exhaustees.

MANPOWER PROGRAM SERVICES AND TECHNIQUES This program deals with the following aspects of manpower service programs: education; public employment programs; supported employment; job upgrading and restructuring; worker assessment and orientation; and other supportive services for workers and trainees. Specific projects include:

- Transition from School to Work: The Contribution of Cooperative Education Programs at the Secondary School Level;
- The Potential of Wage Subsidies; and
- Assessment Tools for Counseling Manpower Program Clients Toward Suitable Training or Job Placement.

LABOR MARKET This program area focuses on general research on labor force, labor market, and labor demand; research on specific sectors and cohorts of the labor force and labor market; employer practices; and worker attitudes. Specific studies include:

- The Economic and Social Aspects of the Labor Force Behavior of Low-Income Families in Four Southern Rural Counties;
- Impact of Temporary Help Service Industry Upon Women's Labor Market Participation and Behavior;
- Labor Supply for Lower Level Occupations, 1960–1980;
- National Longitudinal Survey of Labor Force Behavior; and
- Labor Market, Inflation, and Manpower Policy—A Simulation Model.

MANPOWER, ECONOMIC, AND SOCIAL POLICIES This program area assesses the impact of labor market behavior and manpower programs on national policy. Specific projects include:

- The Employment Impact of Multinational Corporations;
- The Manpower Impact of Government Programs and Policies; and

- A Study of the Employment Impact of Federal Assistance Programs for Minority Business Enterprise.

Policy Formulation Demonstrations

These projects seek to develop and test in operation ways in which state and local manpower program sponsors under CETA might more effectively address locally determined manpower needs. These demonstrations determine the feasibility of potentially useful innovations and analyze the effectiveness of new techniques. Many of these demonstrations are jointly funded with other agencies and thus the total spent on these projects is larger than the ORD portion. Examples of such demonstrations are described below.

JOB SEARCH AND RELOCATION ASSISTANCE PILOT PROJECT This project was undertaken to test the feasibility and effectiveness of using a "job bank" as a source of information on filling jobs and providing relocation services.

EX-OFFENDER DEMONSTRATION This program was aimed at testing the efficiency of providing transitional financial aid to ex-offenders to assist them in entering community life and finding employment.

DEMONSTRATION PROJECT TO SERVE YOUNG BLACK GIRLS IN TENNESSEE This project tested whether a program of peer group reinforcement, role model aides, and constructive work experience could reduce school dropout rates and improve labor market experience for female students upon leaving school.

FEASIBILITY DEMONSTRATION FOR THE INTRODUCTION OF VOUCHERS INTO THE WORK INCENTIVE PROGRAM (WIN) This project was aimed at determining the administrative feasibility of using vouchers for the purchase of manpower training services by WIN and estimating the administrative costs and benefits of using them.

SUPPORTED EMPLOYMENT PROJECTS These consisted of a series of projects to determine the national feasibility and potential of public service supported work programs for individuals with addiction, alcoholic, and offender backgrounds who are unable to remain successfully employed. The basic feature of the demonstration is to provide work in a controlled, low-stress environment for individuals who are not ready for entry into the competitive labor market.

Program Evaluation

It was frequently difficult to make the distinction between research activities and program evaluation activities in ETA. Many of the research projects funded by ORD have a clear "evaluation" component. With the exception of several projects, the "evaluation research" activities of ORD were categorized as research.

General Purpose Statistics

ETA has statistical responsibilities for all manpower programs and activities in the Department of Labor. In addition, ETA gives grants to state employment services to assist the department in collecting the data described below.

CURRENT EMPLOYMENT STATISTICS PROGRAM This program collects information each month from a sample of employers on employment, average weekly wages, and average weekly hours. The data resulting from this statistical collection are published in the *Monthly Labor Review*. Data are also published by the individual state employment agencies, which conduct the data collection activity. *Area Trends in Employment and Unemployment* is published.

LABOR TURNOVER STATISTICS This program area collects statistics monthly from a sample of employers on separations (terminations of employment) and accession (addition to employment). These data are published for the nation as a whole, states, and geographical areas. Individual state employment agencies also publish the data.

ETA also has responsibility for the federal-state cooperative program entitled Occupational Employment Statistics Program. The program consists of data on employment by occupation and industry and is conducted on a three-year cycle. The data are useful in measuring occupational employment trends, analyzing the changing occupational composition of industry, and projecting occupational manpower requirements to be used as a basis for planning education and training, in aiding the work of the public employment service, and for providing information useful in industrial management and in research on labor markets.

Policy Implementation Demonstrations

In addition to policy formulation demonstrations, a number of demonstrations are funded to promote a given concept among state and local manpower sponsors and employment agencies. Some of these demonstrations are described below.

MINORITY WOMEN EMPLOYMENT PROGRAM This is a demonstration program aimed at facilitating entry of minority women into managerial, professional, and technical occupations. The project demonstrates a combined outreach and employer persuasion approach that can be used in overcoming obstacles to the employment of minority women. The program has wide applicability to employment programs nationwide.

EMPLOYMENT OF HANDICAPPED IN STATE CIVIL SERVICE This project attempted to demonstrate the implementation and operation of a sheltered work situation within state civil service systems, in which the less severely handicapped people were rehabilitated through training and employment in a specific job.

UPGRADING PARAPROFESSIONALS IN HUMAN SERVICE OCCUPATIONS This project demonstrates innovative models of upward mobility for paraprofessionals in human service occupations that could be used by employers, educational institutions, appropriate unions, and professional societies.

"JOB TRIALS" DEMONSTRATION PROJECT This program demonstrated the feasibility of using "job trials" as a new tool in the process of personnel selection and upgrading. This approach could be used by employers, labor unions, educational institutions, and other appropriate agencies.

Dissemination

Since its creation, the Office of Research and Development has recognized the importance of utilization and dissemination. ORD has a unit, the Division of R&D Utilization, assigned to these activities. The unit is responsible for working with other parts of ETA and the department as a whole to facilitate the adoption or adaptation of new research and development techniques. Utilization activities have included:

○ experimentation with the development of utilization networks at local levels and exploration of ways to encourage local participation;

- synthesizing and analyzing research and development findings to help local agencies, including prime sponsors, put them to use;
- publishing and distributing summaries of R&D reports; and
- sponsoring seminars, conferences, and workshops.

For Further Information

See *Manpower Research and Development Projects*, a publication of the Department of Labor; *Knowledge and Policy in Manpower: A Study of the Manpower Research and Development Program in the Department of Labor*, National Academy of Sciences, Washington D.C., 1975; or write Office of Research and Development, Employment and Training Administration, Department of Labor, 601 D Street, N.W., Washington, D.C. 20213.

LABOR MANAGEMENT SERVICES ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	814				814					814
1976	2,790				2,790					2,790
1977	2,757				2,757					2,757

The Labor Management Services Administration (LMSA) is responsible for administering the Department of Labor's labor management relations activities. The agency provides assistance in collective bargaining negotiations and keeps the secretary of labor up-to-date on developments in labor management disputes of national scope. In addition, LMSA provides technical assistance to state and local governments on matters concerning public employee labor relations and pursues research and policy development in the field of labor management relations.

Research

The major objective of the agency's research activities is to conduct and support studies that will assist the department in administering various laws on labor management relations. Research is also supported to assist the agency in formulating policy recommendations concerning labor management relations and for promoting measures to improve them. Research is funded on the four major areas described below.

PUBLIC SECTOR LABOR RELATIONS Problems arising out of public sector labor negotiations are studied. Research covers issues such as how the public interest should be represented in bargaining and the impact of bargaining on state and local civil service systems. Studies also focus on how federal legislation relates to state and local government labor relations.

PRIVATE SECTOR LABOR RELATIONS Research has been undertaken on the collective bargaining experiences in a variety of major industries. Research also focuses on private employee job and income protection, construction industry labor relations, the structure and process of collective bargaining, expedited arbitration, and the effects of technological change on life and work.

WELFARE AND PENSIONS Studies in this area have been mandated by the Employee Retirement Security Act of 1974 (ERISA). The law requires that research be conducted on:

- the effects of the termination or modification of federal contracts or grants on the pension and retirement rights and benefits of scientific and professional employees working under such federal contracts or grants;
- the impact of the act on the provisions and cost of pension plans;
- the operation of private pension plans, including the actuarial characteristics of pension plans and the operations of agreements for reciprocity and portability;
- the role of private pension plans in meeting the economic security needs of the nation; and
- methods of encouraging the growth of private pension plans.

POLICY RESEARCH Studies are funded to support the development of policies related to possible changes in the federal labor management relations program, state and local labor management relations, the formulation of regulations under the Employment Retirement Income Security Act, and other selected issues.

For Further Information

Write Labor Management Services Administration, Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,370			5,581	8,951		5,200	6,000	11,200	20,151
1976	2,520	800	440	5,977	9,737		5,700	6,000	11,700	21,437
1977	6,680	800	440	6,159	14,079	12,000	6,200	6,000	24,200	38,279

The Occupational Safety and Health Administration (OSHA) was created in 1970, when the Occupational and Safety Health Act extended mandatory federal standards for the safety and health protection of workers. OSHA has responsibility for the following occupational safety and health activities:

- developing and promulgating occupational safety and health standards;
- developing and issuing safety and health regulations;
- conducting investigations and inspections to determine the status of compliance with safety and health standards and regulations; and
- issuing citations and penalties for noncompliance with safety and health standards and regulations.

Research

OSHA supports social research in two major areas. The first consists of research to determine the economic and environmental impact of anticipated OSHA standards. These studies analyze the technological feasibility, economic feasibility, and environmental impact of proposed OSHA regulations and standards. The studies usually have the following components:

- an analysis of the principal costs or other inflationary effects of the proposed action on markets, consumers, and businesses and, where practical, an analysis of secondary costs and price effects;
- a comparison of the benefits to be derived from the proposed action with its estimated cost and inflationary impact; and
- a review of alternatives to the proposed action that were considered, including their probable costs, benefits, risks, and inflationary impacts compared with those of the proposed action.

The second area consists of research on what factors are effective in reducing injuries and illnesses. Research is now under way to collect and analyze available data to identify causal factors in injury reduction and to establish what countermeasures are effective and ineffective. Physical, behavioral, management, and random factors are being analyzed. Research has also been funded to establish a "knowledge baseline," which measures employee awareness of job safety and health principles.

Policy Formulation Demonstrations

Prior to its full-scale implementation, the National Emphasis Program (discussed below) was tested as a policy formulation demonstration. In fiscal 1977, several other innovative occupational safety "education" programs were tested.

General Purpose Statistics

OSHA is responsible for collecting and publishing statistics on occupational fatalities, injuries, and illnesses. It supports an annual national survey that collects information on work-related occupational injuries involving medical treatment (other than first aid), loss of consciousness, restriction of work or motion, or transfer to another job. The data are used in a variety of ways: planning and evaluating programs, measuring progress in reducing hazards in the workplace, identifying industries and occupations that have the most serious safety and health problems, and targeting OSHA activities. In addition, the data are used by OSHA's research program to identify circumstances and events associated with injuries and illnesses that may suggest causes and means of prevention.

Policy Implementation Demonstrations

The National Emphasis Program is aimed at reducing specific hazards and compliance problems in selected high-hazard industries. The program uses multiple methods to reduce safety hazards. Education, consultation, and information activities are integrated and combined with enforcement activities. A key element of the program is the involvement of industry and labor organizations in working with their members to support voluntary actions aimed at controlling and eliminating occupational and safety health hazards.

In fiscal 1977, the first coordinated demonstration program, the National Emphasis Program, focused on the foundry and metal stamping industries. The program shows how close coordination between OSHA and organized labor and industry can work to reduce health hazards. The major thrust of the demonstration program is support of a mix of activities (training, dissemination of materials, technical assistance, and other educational activities) that encourage voluntary compliance while using a well-trained inspection team to monitor these efforts. Education and consultative service programs are available to employers well before the inspections begin. Employers are encouraged to use these services in order to prepare for the inspection phase. If this program is accepted and effective, it will be used in other industries in the future.

Development of Materials

OSHA supports the development of training materials concerned with occupational and safety hazards and ways in which hazards can be reduced. The training materials are made available at nominal costs to industry associations, employers, and employee organizations. Training materials concentrate on specific recognition and control of the principal safety and health hazards in high-hazard industries. Training packages have been prepared for the longshoring, agricultural, construction, and meat cutting industries. Packages have also been prepared for use by federal departments and agencies.

Dissemination

Training courses, educational programs, information materials, and technical assistance are provided to employers, employees, trade associations, union representatives, state and local safety and health personnel, and other interested members of the public to assist them in understanding their rights and responsibilities concerning occupational safety and health. Various dissemination mechanisms are used to stimulate voluntary compliance through joint labor-management cooperation and to promote private sector efforts to identify and deal independently with safety and health hazards in the work place. The dissemination program makes use of the materials developed by the agency and information gained through research.

For Further Information

Write Occupational Safety and Health Administration, Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

OFFICE OF THE SECRETARY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,088				1,088					1,088
1976	1,480				1,480					1,480
1977	1,300				1,300					1,300

In the Office of the Secretary, the Office of the Assistant Secretary for Policy, Evaluation, and Research (ASPER) is responsible for coordinating and providing leadership in the department's policy and planning activities, program evaluation, and economic and social research activities. ASPER serves as the primary analytical arm for the secretary and is charged with policy development, program budget analyses, and the planning, coordination, and synthesis of research and evaluation projects. In addition, ASPER performs coordinative and substantive functions designed to upgrade the department's research and evaluation activities.

Research

In addition to assisting departmental agencies in preparing research and evaluation work plans and providing them with technical assistance in the design and analysis of projects, ASPER conducts and supports research that is of interest in the entire department. These activities could have been classified as either research or program evaluation. Because many of ASPER's studies are general and frequently exploratory or methodological in nature, the Study Project decided to categorize these activities as research rather than program evaluation. ASPER's research draws on work conducted throughout the department. Research is supported in the areas described below.

WORKERS' COMPENSATION Projects have been funded to determine theoretical aspects of the workers' compensation system. Individual projects have looked at the division of accident costs between employer and employee.

OCCUPATIONAL SAFETY AND HEALTH Projects have been funded on: the effectiveness of the Occupational Safety and Health Act of 1970 in reducing work place injuries; developing an economic model that describes the economic costs and implication of disability injuries; and a benefit-cost analysis of federal asbestos standards.

FEDERAL CONTRACT COMPLIANCE AND EQUAL EMPLOYMENT OPPORTUNITY Projects have been funded on: assessing equal employment opportunity construction plans; the earning differentials between disabled and nondisabled workers; developing a model to identify societal versus market factors in sex discrimination.

EMPLOYMENT STANDARDS A series of projects has been funded on various aspects of the effects of minimum wage laws on the youth labor market. Several models have been developed to determine the effects of minimum wage legislation on youth labor market behavior.

LABOR RELATIONS A study has been funded to develop a model that reflects the effects of unions on the labor market. Another study determined the effects of unions on fringe benefits.

QUALITY OF WORK Research has been funded on the development of work indicators in social reporting. Another study has examined the effects of performance feedback systems on improving work performance.

EMPLOYMENT AND TRAINING PROGRAMS A series of studies has looked at various aspects of manpower, training, and employment programs. The benefits of manpower training programs as well as the efficiency and efficacy of public service employment have been analyzed.

UNEMPLOYMENT COMPENSATION Various aspects of the unemployment compensation program have been studied, for example, the relationship between unemployment insurance benefits and duration of unemployment as well as reemployment wages. Another study has looked at the distribution of unemployment insurance benefits by classes of income and earnings.

PENSIONS The effects of alternative pension plans on wage patterns has been analyzed. Studies have also examined the effects of Employee Retirement Income Security Act of 1974 on the timing of retirement and pension plan benefits.

LONG-RUN LABOR MARKET PROBLEMS This area has funded research in a variety of topics: the consequences of fertility decline on the U.S. labor markets; the impact of wage and price controls on strike activity; the impact of inflation on labor skill differentials; determining true cost of living increases; and the influence of trade unions on the rate of inflation.

For Further Information

Write Office of the Assistant Secretary for Policy, Evaluation, and Research, Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

16 Department of State

The Department of State is one of the smaller funders of social knowledge production and application among the 12 cabinet-level departments. The department's social knowledge production and application activities are divided among 3 diverse organizations: the Agency for International Development (AID), the Bureau of Intelligence and Research, and the Bureau of Educational and Cultural Affairs. Approximately 95 percent of the department's social knowledge production and application activities is obligated by AID.

The dollar totals reported for "departmental activities" may be slightly misleading. While those figures include only the external contract obligations (along with the in-house dissemination activities) of the Bureau of Intelligence and Research's Office of External Research, substantial amounts of in-house research and analysis are performed by other components in the bureau. The bureau now has a budget of more than $8 million, employs more than 300 persons, and produces over 1,000 in-house research reports annually for use within the government. It is estimated that at least an equal number of ad hoc, informal responses are written each year. The State Department has historically excluded these in-house activities from their R&D totals. As is the case with several other federal agencies, the line between in-house staff work and research in the bureau is often a thin one. Because the activities of the bureau seem much closer to day-to-day staff work and analysis, we have excluded the bulk of these activities and only reported the extramural research and intramural dissemination activities of the Office of External Research.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 16-1 presents the distribution of the State Department's social knowledge production and application activities. As noted above, over 95 percent of those activities is funded by AID. The largest activity is research, accounting for almost 60 percent of departmental fiscal 1977 total obligations. It is significant to note that the second-largest category is dissemination. The State Department—that is, both AID and the Bureau for Intelligence and Research—has placed great emphasis on the importance of disseminating research findings and other materials.

ORGANIZATION OF THE DEPARTMENT

Figure 16-1 presents an organizational chart for the State Department. As the figure shows, AID operates somewhat apart from the other components of the department. (While the Arms Control and Disarmament Agency appears in the chart, that agency is discussed in Chapter 20.)

Table 16-2 presents the Department of State agencies that support social knowledge production and application activities. As noted above, only three components of the department support social knowledge production and application activities. It is interesting to note that the audiences of these activities differ among the three organizations. For AID, the goal or audience is providing knowledge for third parties. Unlike domestic agencies, in this case the third parties are the less developed nations of the world. The importance of reaching this audience partially explains the emphasis on dissemination of knowledge in AID. The audience for the Bureau of Intelligence and Research activities is primarily State Department policy makers.

POLICY AREAS IN THE DEPARTMENT

Table 16-3 presents the policy areas in the Department of State in which social knowledge production and application activities are supported. Social knowledge production and application on health, the largest policy area, are funded by AID. The second-largest area is natural resources and environment, also funded by AID, and focuses on improving agricultural management and economics in less developed nations. Knowledge production and application activities on interna-

TABLE 16-1 Department of State Social Knowledge Production and Application Activities ($millions)

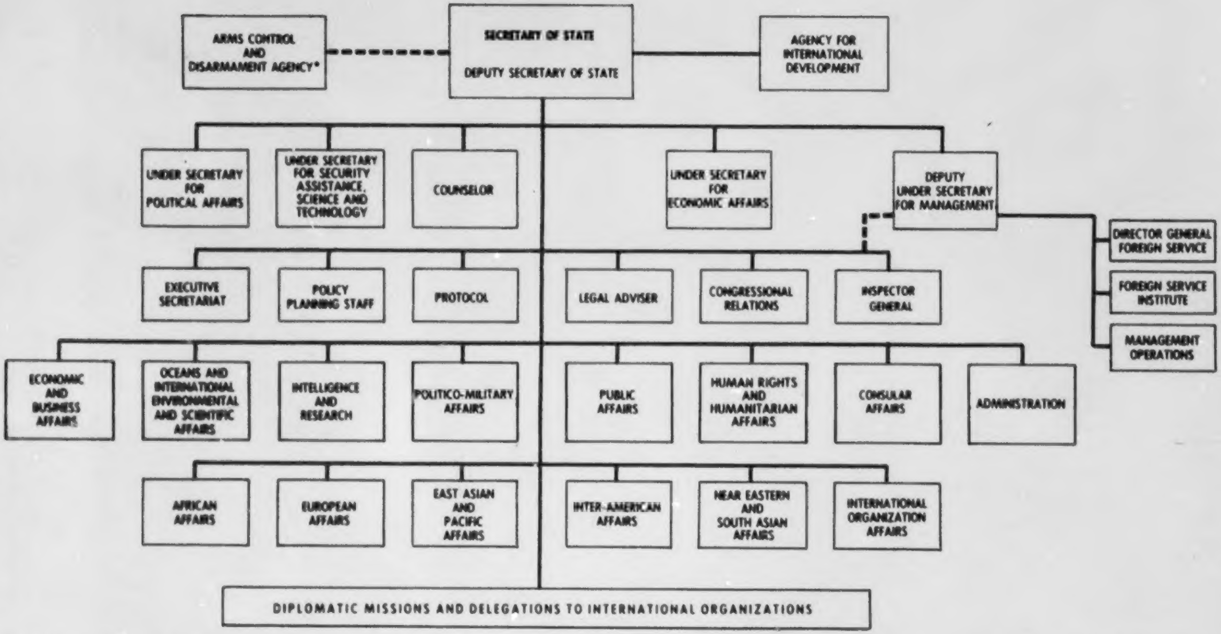
Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	12.1	13.9	17.3
	(62.4)	(58.1)	(59.7)
Policy formulation demonstrations	1.8	1.4	2.1
	(9.4)	(5.8)	(7.4)
Program evaluation	1.0	1.5	1.1
	(5.3)	(6.3)	(3.7)
General purpose statistics			
Total	5.0	16.9	20.5
	(77.1)	(70.2)	(70.7)
Knowledge application			
Policy implementation demonstrations	0.2	0.9	0.3
	(0.8)	(3.9)	(1.0)
Development of materials	0.3	0.4	0.5
	(1.6)	(1.5)	(1.7)
Dissemination	4.0	5.9	7.7
	(20.5)	(24.4)	(26.6)
Total	4.4	7.2	8.5
	(22.9)	(29.8)	(29.3)
TOTAL	19.4	24.0	29.0
	(100.0)	(100.0)	(100.0)

TABLE 16-2 Department of State Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Agency for International Development	27.2	Research	Operating program	Knowledge for third parties
Departmental activities[b]	1.8	Research	Policy-making office	Improvement of federal policies
TOTAL	29.0			

[a] See Chapter 2 for a more detailed discussion.

[b] Includes the Bureau of Intelligence and Research and the Bureau of Educational and Cultural Affairs.


ARMS CONTROL AND DISARMAMENT AGENCY*
SECRETARY OF STATE
DEPUTY SECRETARY OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
UNDER SECRETARY FOR POLITICAL AFFAIRS
UNDER SECRETARY FOR SECURITY ASSISTANCE, SCIENCE AND TECHNOLOGY
COUNSELOR
UNDER SECRETARY FOR ECONOMIC AFFAIRS
DEPUTY UNDER SECRETARY FOR MANAGEMENT
DIRECTOR GENERAL FOREIGN SERVICE
FOREIGN SERVICE INSTITUTE
MANAGEMENT OPERATIONS
EXECUTIVE SECRETARIAT
POLICY PLANNING STAFF
PROTOCOL
LEGAL ADVISER
CONGRESSIONAL RELATIONS
INSPECTOR GENERAL
ECONOMIC AND BUSINESS AFFAIRS
OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS
INTELLIGENCE AND RESEARCH
POLITICO-MILITARY AFFAIRS
PUBLIC AFFAIRS
HUMAN RIGHTS AND HUMANITARIAN AFFAIRS
CONSULAR AFFAIRS
ADMINISTRATION
AFRICAN AFFAIRS
EUROPEAN AFFAIRS
EAST ASIAN AND PACIFIC AFFAIRS
INTER-AMERICAN AFFAIRS
NEAR EASTERN AND SOUTH ASIAN AFFAIRS
INTERNATIONAL ORGANIZATION AFFAIRS
DIPLOMATIC MISSIONS AND DELEGATIONS TO INTERNATIONAL ORGANIZATIONS

*A separate agency with the director reporting directly to the Secretary and serving as principal adviser to the Secretary and the President on Arms Control and Disarmament.

FIGURE 16-1 Department of State organizational chart.

TABLE 16-3 Department of State Agencies: Social Knowledge Production and Application Activities by Policy Areas (fiscal 1977, $millions)

	Human Resources					Community Resources						Natural Resources				
Agency	Health	Education	Employment and Training	Income Security and Social Services	Total	Economic Growth	Housing and Community Development	Transportation	Law Enforcement and Justice	International Affairs	Total	Natural Resources and Environment	Energy Development and Conservation	Total	Science and Technology Base	TOTAL
Agency for International Development	19.3 (71.0)[a]	2.6 (9.7)			21.9 (80.6)		0.2 (0.7)			1.0 (3.8)	1.2 (4.5)	3.2 (11.9)		3.2 (11.9)	0.8 (3.0)	27.2 (100.0)
Departmental activities										1.8 (100.0)	1.8 (100.0)					1.8 (100.0)
TOTAL	19.3 (66.6)	2.6 (9.1)			21.9 (75.6)		0.2 (0.7)			2.8 (9.8)	3.0 (10.5)	3.2 (11.1)		3.2 (11.1)	0.8 (2.8)	29.0 (100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are row percentages.

tional affairs are primarily conducted in the Bureau of Intelligence and Research.

AGENCY FOR INTERNATIONAL DEVELOPMENT

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	11,096	1,834	834		13,764	150	259	3,649	4,058	17,822
1976	12,856	1,404	1,329		15,589	930	300	5,542	6,772	22,361
1977	16,078	2,135	875		19,088	300	434	7,376	8,110	27,198

It is the policy of the United States to assist the people of less developed countries in developing their human and economic resources, increasing their productive capacity, and improving the quality of human life in those countries. The Agency for International Development (AID) is charged with administering the U.S. foreign economic assistance program.

The social knowledge production and application activities of AID are carried out in two locations: the Bureau of Population and Humanitarian Assistance and the Bureau for Technical Assistance. Both bureaus place great emphasis on the application as well as the production of knowledge in the less developed nations. It should also be noted that the Study Project's categorization includes not only the social science research activities of AID but also their demonstration and dissemination activities. Thus, the total for AID is larger than the figure reported to the National Science Foundation as social science research.

An interesting feature of the research and development program of AID is its institutional grants program to universities. In 1966, Congress authorized AID to spend a maximum of $10 million annually for assisting universities in the United States to strengthen their capacity to develop and carry out programs concerned with the economic and social development of less developed countries. Since that time, AID has made a series of five-year awards (known as Section 211[d] grants) to universities to incr[illegible] their responsive capabilities in a particular field or on a probl[illegible] mutual interest to AID and the university.

Selections are made on the basis of the university's demonstrated competence in priority fields of activity and the degree of long-term commitment that it is willing to offer the program. While 211(d) grants are not singled out in the discussion to follow, many of the activities of the Bureau for Technical Assistance use funds from 211(d) grants. Institutional grants have been given on the following topics: international agricultural economics; health and population planning; law, development, and modernization; comparative legislative studies; economic, social, and political development and modernization; and educational development.

For further information on the Section 211(d) grants, see *A Directory of Institutional Resources, U.S. Centers of Competence for International Development*, a publication of AID.

For Further Information

See *Catalog of Selected* AID *Publications* and AID *Research and Development Abstracts*, which are both publications of AID, or write Agency for International Development, 320 Twenty-first Street, N.W., Washington, D.C. 20523.

BUREAU OF POPULATION AND HUMANITARIAN ASSISTANCE

AID's interregional population program is managed by the Bureau of Population and Humanitarian Assistance. The interregional population program focuses on six areas: education and information systems; manpower and institutional development; demographic and social data; population policy, dynamics, and fertility behavior; fertility control techniques and operations research; and family planning delivery systems. Varying amounts of social research and related activities are conducted in each area; the bureau's fiscal 1977 total for social knowledge production and application was $16.0 million.

Education and Information Services

This program area supports a variety of dissemination activities, primarily support of conferences, training sessions, and technical assistance. The bureau supports several projects that train individuals from less developed countries in ways to disseminate family planning practices. A technical assistance program is also supported in which home economists from less developed countries are taught family planning practices as part of their professional duties. Seminars are supported to promote greater knowledge and awareness among Latin American policy makers and opinion leaders about population and family planning. This program area also supports the development of materials that provide simple and clear explanations of family planning techniques. A major goal of the program is to develop and disseminate educational methods and materials on population and family planning.

Manpower and Institutional Development

The goal of this program area is to develop adequate manpower for population and family planning programs in the less developed nations. The program area supports several dissemination activities; the largest is a technical assistance program through which several universities are funded to help countries develop and implement problem-solving activities related to key population and family planning issues. Several projects provide technical assistance to resolve demographic, communication, service delivery, and institutional development problems that are inhibiting program implementation in less developed countries. In addition, seminars are funded to disseminate the latest information about family planning problems to influential leaders from less developed nations.

Demographic and Social Data

The goal of this program area is to support research that will aid in understanding of the economic and social implications of rapid population growth and assist in the formulation of family planning policies and programs. Areas of research include:

LABORATORIES FOR POPULATION STATISTICS This project is developing and implementing demographic data systems and methodologies to provide an information base for social and economic developmental planning.

MEASURE OF DEMOGRAPHIC CHANGE The purpose of this program is to generate continuous, current, and reliable fertility and mortality data in selected countries by improving systems of vital events registration and using the data generated by those systems and others to measure the demographic impact of family planning programs.

BIRTH AND DEATH COLLECTION SYSTEMS This program focuses on the measurement of demographic change (fertility, mortality, and population growth rates) in developing countries with major family planning programs; its goal is to measure trends in countries that have inadequate statistical systems for generating demographic data.

Another activity of this program area is the evaluation of the effectiveness of family planning programs. Evaluations are conducted by supporting subnational fertility surveys in areas that have had substantial family planning activities. Existing fertility and program data are also analyzed. This program also includes demographic training programs for individuals from less developed countries. While these training activities may include a research component, they have been excluded from the Study Project survey.

Population Policy, Population Dynamics, and Fertility Behavior

This program area supports research activities aimed at developing a better understanding of the factors affecting population growth and distribution in a given society and the effects of population growth on society. All factors—biomedical, social, economic, religious, and legal—that influence people's desired and actual family size and use of family planning services are studied. Specific areas of inquiry include:

○ *Analysis of Population/Economic Growth Issues.*

○ *Analysis of Cultural Factors in Population Programs.*

○ *Research on Fertility Determinants and Consequences* supports social science research needed to develop stronger bases for the formulation of national population policies to reduce fertility.

○ *Law and Population Program* examines the impact of national laws on family planning programs.

○ *Analysis of Evaluation of Population Dynamics.* This program assists less developed countries in considering the impact of population dynamics on their own development and in helping design, implement, and improve population policies that will contribute to development goals.

Fertility Control Techniques and Operational Research

This program, largely biomedical in nature, seeks to develop inexpensive and simplified fertility control techniques suited to the needs of developing countries. However, some social knowledge production and application activities are supported in this program. Research is funded to study innovative, integrated family planning distribution systems. A small policy implementation demonstration is funded to assess the effectiveness and feasibility of the concept of a household delivery system. This program area also supports a large dissemination component: an information retrieval system to gather, update, and disseminate information relating to fertility control, family planning programs, and law and public policy.

Family Planning Delivery Systems

This program area focuses on the actual delivery of family planning programs in less developed nations. No social knowledge production or application activities were found in this program area.

BUREAU FOR TECHNICAL ASSISTANCE

The Bureau for Technical Assistance administers AID's interregional technical assistance and research program. The bureau's programs produce, adapt, disseminate, and promote the use of knowledge to help solve the problems of the poor in developing countries. The goal of the program is to apply the latest technical and scientific knowledge in developing countries. The bureau concentrates its efforts in four major problem areas: food and nutrition, health, education and human resources, and selected development programs. Each area supports some social knowledge production and application activities; the bureau's fiscal 1977 total for social knowledge production and application was $11.2 million.

Food and Nutrition

While the greatest emphasis is placed on food production and agricultural research, social knowledge production and application activities are supported in three areas: agricultural management and support, agricultural economics and analysis, and national nutrition planning and motivation.

The agricultural management and support program supports a variety of dissemination activities. Technical assistance is provided to help developing countries assess, plan, organize, implement, and evaluate food and nutrition programs. An information retrieval system is also supported to provide information to developing countries.

The agricultural economics and analysis program supports research to help developing countries improve their capacity to analyze agricultural sector problems with emphasis on production, employment, income distribution, trade and domestic markets, land reforms, resource use, the quality of life in rural areas, problems of small farmers, and rural development.

The nutrition programs support research that focuses on ways of using mass media advertising techniques to educate people about good nutrition patterns. A variety of dissemination activities, including technical assistance and workshops, are supported in the area of nutrition education and child feeding.

Health

AID's interregional health program attempts to assist developing countries in improving health care delivery to the poor, with emphasis on maternal and child health, nutrition, family planning, improving the efficiency and equity of health care resource allocations, and improving environmental health problems. A variety of social knowledge production and application activities are supported in this area.

AID's program on health delivery systems supports a series of policy formulation demonstrations on ways to extend the delivery of integrated health services to less developed countries at a cost affordable by those countries. Research activities are funded on ways to improve the health status and health planning capability of less developed countries. Several studies have analyzed the cost effectiveness of alternative health measures. Dissemination activities are supported to spread information concerning health delivery systems throughout the world. Technical assistance is provided to less developed countries to assist them in implementing health programs in their countries.

Education and Human Resources

The goal of this program area is to assist developing nations in identifying national learning needs and the development of cost-effective and equitable approaches to education.

A limited number of policy formulation demonstrations and policy implementation demonstrations are supported in the education area. These demonstrations seek to test and promote ways in which developing countries can provide relevant learning opportunities at a reasonable cost through the use of modern communication technologies and methods. For example, a demonstration using two-way radio communication for rural primary schools is being tested. Research studies have been funded to investigate the potential uses of communications technology in rural primary schools.

This program also supports research in several other areas. Several projects are being funded on educational finance and measurement in developing countries. Other research studies are examining ways in which rural local organizations in developing countries can be used as vehicles for effective informal education programs.

Selected Development Programs

Social knowledge production and application activities are being funded in two areas: urban development and social and economic research. Research is funded on analyzing the potential impact of rapid urbanization in developing countries. Several projects are also being conducted on the role regional planning can play in the development of smaller cities, and information is being disseminated in this area.

The Bureau for Technical Assistance also supports research aimed at devising appropriate economic policies and programs in developing countries. Studies are funded on ways in which alternative economic policies can contribute to increased employment and employment opportunities, a broader distribution of development benefits, and more efficient and effective use of scarce human and financial resources.

In the general area of selected development problems, AID supports a series of dissemination activities, which include:

- international conferences and workshops;
- publication of AID Research and Development Abstracts;
- distribution and demonstration of new materials, models, and prototypes;
- "outreach" programs of the international agricultural research centers; and
- encouragement of regional and global agricultural information networks.

DEPARTMENT OF STATE: OTHER AGENCIES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,010		190		1,200		56	331	387	1,587
1976	1,089		190		1,279		56	324	380	1,659
1977	1,234		190		1,424		56	327	383	1,807

In contrast to the Agency for International Development, the State Department itself supports a limited amount of social knowledge production and application activities. The department's social knowledge production and application is supported in the Bureau of Intelligence and Research and the Bureau of Educational and Cultural Affairs.

BUREAU OF INTELLIGENCE AND RESEARCH

The Bureau of Intelligence and Research coordinates programs of intelligence, research, and analysis for the department and other federal agencies. Its fiscal 1977 total for social knowledge production and application activities was $1.3 million. The bureau produces intelligence studies and current intelligence analyses essential to the formulation of U.S. foreign policy. As a supplement to its own intramural research and intelligence capabilities, the bureau supports a small program of extramural research, which is conducted by the Office of External Research.

In addition to funding extramural research, the Office of External Research serves as an intellectual link between the State Department's operating agencies and planning and analytical offices on one hand, and academic institutions, individual scholars, and other foreign policy specialists on the other hand. The office has long used conferences as a major mechanism of dissemination, to enable governmental staff to interact with the academic community. The office also uses consultants to provide departmental analysts and offices with specialized knowledge or fresh ideas and insights into questions on foreign policy.

The Office of External Research supports approximately 30 research projects and 35 conferences annually. These studies and conferences attempt to do the following: detect or clarify situations and trends in foreign affairs; anticipate international problems and opportunities; review, evaluate, and plan foreign policies and programs; illuminate and improve the management, organization, and conduct of U.S. foreign relations; and improve and advance theory, methods, and data in disciplines and fields that bear on foreign affairs. Thus, the extramural research program enables the Department of State to gain social science knowledge and techniques that otherwise would not be available to the government. Some recent research projects funded by the bureau include:

○ The Dynamics of Inter-American Relations;
○ A Study of Foreign Policy;
○ Political Dynamics and International Relations of the Soviet Union;
○ Critical Problems of International Interdependence;
○ Venezuelan Foreign Policy;
○ Legal Aspects of International Terrorism; and
○ Patterns of Law Enforcement in the Oceans.

In addition to using conferences as a dissemination mechanism, the Office of External Research supports the Foreign Affairs Research Documentation Center. The center collects and disseminates studies produced by the State Department and other government agencies as well as unpublished research papers contributed by individual scholars, universities, and research centers. The purpose of the center is to facilitate the exchange of information between the government and the academic community on completed research, thus increasing the use of research results and helping to avoid duplication. The office issues three series of publications:

○ *Foreign Affairs Papers Available*, a monthly accessions list of papers collected by the Foreign Affairs Documentation Center;
○ *Foreign Affairs Research: Special Papers Available*, an annual cumulative listing of research papers previously cited in monthly *Papers Available;* and
○ *Government-Supported Research on Foreign Affairs: Current Projects Information*, an annual listing of research projects that were initiated, ongoing, and completed during the fiscal year. (Beginning with the fourth quarter of fiscal 1977, the document will be issued quarterly.)

The Office of External Research frequently points out that the size of its contract research program is not an adequate measure of its interest in research. Equally important, in the eyes of the office, are its attempts to identify, monitor, and assimilate the vast amount of private research being conducted in foreign affairs. The office has used a variety of ways to stretch its limited resources; frequently it contracts directly with individual scholars, arranges for joint funding of projects with other agencies, skims off research results from projects supported by others, and makes frequent use of consultants to supplement staff available in the department.

For Further Information

Write Office of External Research, Department of State, 2201 C Street, N.W., Washington, D.C. 20520.

BUREAU OF EDUCATIONAL AND CULTURAL AFFAIRS

The Bureau of Educational and Cultural Affairs is responsible for programs designed to strengthen patterns of informal, two-way communication designed to increase mutual understanding and cooperation between the people of the United States and those of other nations. The bureau supports research activities on American studies at research centers in foreign nations. Grants are given to American and foreign scholars who specialize in U.S. or foreign studies. The aim of the research centers is to promote international understanding. A small amount of funds is devoted to program evaluation of the bureau's programs.

In October 1977, the President proposed that the Bureau of Educational and Cultural Affairs be consolidated with the U.S. Information Agency to form a new Agency for International Communications.

17 Department of Transportation

The Department of Transportation is the fifth-largest departmental funder of social knowledge production and application in the federal government, obligating nearly $110 million in fiscal 1977. The department was established in 1966 and thus represents one of the "new" supporters of social knowledge production and application. The department was created to ensure the coordinated, effective administration of federal transportation programs and to develop national transportation policies and programs conducive to the provision of fast, safe, efficient, and convenient transportation.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 17-1 presents the distribution of the department's social knowledge production and application obligations. The largest activity is research, accounting for more than 40 percent of the department's total obligations. The second-largest category is general purpose statistics. Within the department, the National Highway Traffic Safety Administration is the largest funder of general purpose statistics. The third-largest knowledge production and application category is policy formulation demonstrations, funded primarily by the Urban Mass Transportation Administration.

NOTE: This chapter was written with the assistance of Pam J. Neff.

TABLE 17-1 Department of Transportation Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	34.0	43.2	44.0
	(41.8)[a]	(42.7)	(40.1)
Policy formulation demonstrations	7.3	8.9	17.1
	(9.0)	(8.8)	(15.5)
Program evaluation	1.4	1.4	1.9
	(1.7)	(1.4)	(1.7)
General purpose statistics	11.1	20.6	20.8
	(13.7)	(20.4)	(18.9)
Total	53.9	74.1	83.7
	(66.2)	(73.3)	(76.3)
Knowledge application			
Policy implementation demonstrations	15.7	9.7	7.9
	(19.3)	(9.6)	(7.2)
Development of materials	5.2	7.7	9.3
	(6.4)	(7.6)	(8.4)
Dissemination	6.7	9.7	9.0
	(8.2)	(9.6)	(8.2)
Total	27.5	27.0	26.1
	(33.8)	(26.7)	(23.7)
TOTAL	81.4	101.1	109.8
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

ORGANIZATION OF THE DEPARTMENT

Figure 17-1 presents an organizational chart of the department. Six of the seven operating administrations support social knowledge production and application activities. No social knowledge production and application activities were found in the Saint Lawrence Seaway Development Corporation or the Materials Transportation Bureau.

Table 17-2 presents the Department of Transportation agencies that fund social knowledge production and application activities. It is significant that three of the four largest funders of social knowledge production and application in the department have third parties as their primary audience. The Study Project survey estimates that nearly 66

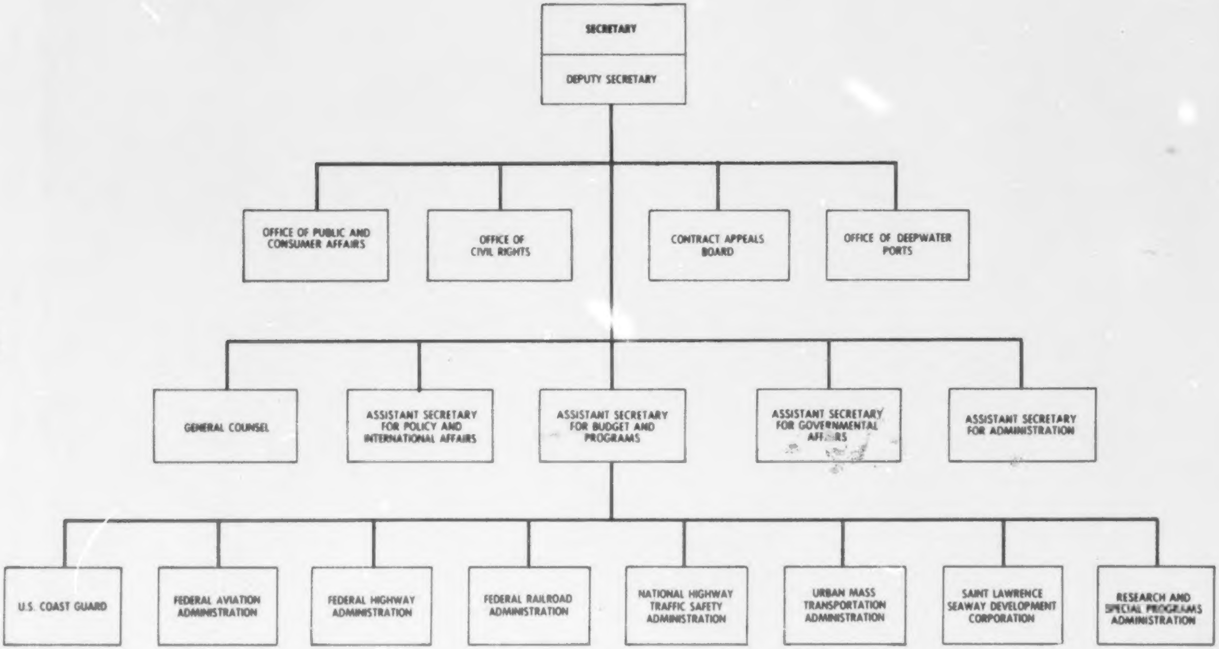

SECRETARY
DEPUTY SECRETARY
OFFICE OF PUBLIC AND CONSUMER AFFAIRS
OFFICE OF CIVIL RIGHTS
CONTRACT APPEALS BOARD
OFFICE OF DEEPWATER PORTS
GENERAL COUNSEL
ASSISTANT SECRETARY FOR POLICY AND INTERNATIONAL AFFAIRS
ASSISTANT SECRETARY FOR BUDGET AND PROGRAMS
ASSISTANT SECRETARY FOR GOVERNMENTAL AFFAIRS
ASSISTANT SECRETARY FOR ADMINISTRATION
U.S. COAST GUARD
FEDERAL AVIATION ADMINISTRATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL RAILROAD ADMINISTRATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
URBAN MASS TRANSPORTATION ADMINISTRATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

FIGURE 17-1 Department of Transportation organizational chart.

TABLE 17-2 Department of Transportation Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Urban Mass Transportation Administration	36.1	Policy formulation demonstrations	Operating program	Knowledge for third parties
National Highway Traffic Safety Administration	27.4	General purpose statistics	Operating program	Knowledge for third parties
Office of the Secretary	20.0	Research	Policy-making office	Improvement of federal policies
Federal Highway Administration	9.0	Research	Operating program	Knowledge for third parties
Federal Railroad Administration	8.8	Research	Operating program	Improvement of federal programs
Federal Aviation Administration	6.5	Research	Operating program	Improvement of federal programs
U.S. Coast Guard	1.9	Research	Operating program	Improvement of federal programs
TOTAL	109.8			

Numbers may not total due to rounding.

[a] See Chapter 2 for a more detailed discussion.

percent of the department's social knowledge production and application activities are aimed at third parties, which include: state departments of transportation, state highway departments, public service or utilities commissions, state multifunctional planning organizations, regional or local planning agencies dealing with transportation, transportation operators, and universities.

The importance of third parties was recognized in the department's 1975 Statement of Transportation Policy: "The value of RD&D (research, development and demonstration) expenditures is ultimately realized in their application in government operations and in the private sector. Consequently, effective dissemination of information about new technology, community demonstration projects, and financial incentives to utilize cost-effective, energy-efficient technology are essential elements of a complete RD&D program." The department has devoted much effort to dissemination and technology-sharing activities. These activities are discussed in the departmental publication *Technology Sharing, A Guide to Assistance in Obtaining and Using Research, Development and Demonstration Outputs.*

POLICY AREAS IN THE DEPARTMENT

All the social knowledge production and application activities of the department were categorized in the "transportation and communication" policy area. While some projects might have been categorized in other policy areas, the focus of every program area was clearly transportation and thus difficult to categorize elsewhere. A more elaborate policy classification system would have been needed to classify the secondary policy focus of the department's projects and programs, such as the environment, labor relations, etc.

FEDERAL AVIATION ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	4,061				4,061		1,002		1,002	5,063
1976	5,342				5,342		1,097		1,097	6,439
1977	5,371				5,371		1,101		1,101	6,472

The Federal Aviation Administration (FAA) is charged with regulating aviation safety and promoting civil aviation and a national system of airports. The FAA operates a system of air traffic control and air navigation for both civilian and military aircraft.

Research

Social research is conducted by the FAA in several areas: aviation medicine, departmental planning and socioeconomic research, and the environment.

AVIATION MEDICINE The primary objective of aviation medicine is to increase pilot and aircrew effectiveness and ensure passenger safety. Research provides information necessary to improve the selection, training, and establishment of performance standards for air traffic controllers. Some of the research projects in this area are described below.

Personnel Performance The role of stress during training at the FAA Academy was studied. The degree of stress for optimal training effectiveness was determined, and a psycho-physiological evaluation of the relationships of stress to training success was made.

Air Traffic Control Workload and Environment A longitudinal study of health change in air traffic controllers was conducted. The study consisted of medical examinations, psychological assessments, and the collection of data on stress.

Air Traffic Controller Selection, Training, and Utilization The study attempted to determine the proper human/machine interrelationship for air traffic controllers in order to ensure that controller work will be most efficient from the standpoint of human capability.

DEPARTMENT PLANNING AND SOCIOECONOMIC RESEARCH FAA socioeconomic research includes the study and investigation of the effects of transportation policies, rules, regulations, and standards on the transportation system, the economy, and society. Studies are conducted concerning aviation economics and alternative futures for the aviation industry.

ENVIRONMENT This research attempts to identify and minimize the undesirable environmental effects caused by the air transportation system, including those related to noise emission and land use activities. In 1968, Congress enacted a series of laws that added environmental considerations to the safety, control, and promotional functions of the FAA. To fulfill this responsibility, FAA conducts economic, financial, and energy impact analyses of alternative environmental regulations. Research is supported to develop improved environmental impact prediction techniques. Specific studies are described below.

Noise Reduction through Airport Use Restrictions Research was supported to develop methodologies to estimate the total costs and benefits associated with airport use restrictions.

Land Use Planning Research assisted in developing and evaluating environmentally compatible community land use planning criteria.

Development of Materials

Two types of materials are developed by the FAA. The first is materials related to the environmental responsibilities of the FAA discussed above. Handbooks were prepared for the FAA staff and federal, state, and local officials concerning environmental impact statements and their preparation. The environmental impact assessment process evaluates both the long- and short-term implications to individuals and their physical and social surroundings by exploring and documenting alternative actions that will avoid or minimize adverse environmental impacts.

The second type of material is training material for pilots. A major effort is being made to develop innovative training and educational technologies. Computer-aided education and mechanical training devices are now being studied.

For Further Information

Write Federal Aviation Administration, Department of Transportation, 800 Independence Avenue, S.W., Washington, D.C. 20591.

FEDERAL HIGHWAY ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5,350			115	5,465			750	750	6,215
1976	8,107			118	8,225			2,037	2,037	10,262
1977	8,089			120	8,209			815	815	9,024

The Federal Highway Administration (FHWA) seeks to coordinate highways with other modes of transportation to achieve the most effective balance of transportation systems and facilities under existing federal transportation policies. The agency is concerned with the total operation and environment of the highway system, with particular emphasis on the improvement of highway safety. FHWA administers a program of financial assistance to states for highway construction as well as the highway beautification program.

Research

FHWA social research is divided into several components: research and development on highways, highway safety research and development, and motor carrier research and development.

R&D ON HIGHWAYS Federal highway legislation emphasizes the need to develop and apply new technology to the nation's highway system. FHWA is responsible for identifying and exploiting new technology to permit the highway program to carry out its mission. To accomplish that goal, FHWA also conducts studies to identify future problems. The goal of the R&D program is to develop faster, better, and more economical solutions to the many problems associated with planning, developing, building, operating, and maintaining an integrated transportation system. Socioeconomic research is funded in several program areas.

Metropolitan Intermodal Traffic Management This group of projects analyzes how urban transportation systems operate and develops concepts and techniques for use by local officials in managing traffic. Initial work in this program area has established performance measures for evaluating the effectiveness of urban transportation systems and developed tools for predicting social and environmental constraints, institutional coordination, and citizen participation.

Measuring and Improving System Performance The goal of this group of projects is the development of information about the highway system's condition, use, performance, and effects. This information will be needed to establish performance measures for evaluating the transportation system and its effect on the community. Future studies will be conducted to develop or refine measures of the social, economic, and land use effects of highways on communities and their neighborhoods.

Socioeconomic Factors in Highway Engineering and Location This project deals with the development of methodologies for measuring and evaluating the social and economic aspects of highway construction. The methodologies are for use by federal and state operating officers in establishing criteria for design changes and cost-effectiveness considerations relative to alleviating or eliminating adverse environmental effects.

Improving Planning Methodology The objectives of this program are to develop new and improved procedures that will enable planners to evaluate and resolve a wide range of transportation issues and program alternatives. Existing planning techniques will be modified and improved to permit rapid and more responsive decision making. Improvements will be made in such procedures as travel demand forecasting, social and economic impact assessment, cost allocation, and investment strategies.

HIGHWAY SAFETY A major responsibility of FHWA is continually updating information on highway design, construction, maintenance, and traffic control devices that have proven successful in improving highway safety. A safety R&D program has been developed to assist in the development of safety standards. The program aims to identify, correct, and evaluate the effectiveness of potential solutions to the problems of highway death, disabling injuries, and property damage on American highways. Specific aspects of the highway safety R&D program that concern social research are described below.

Traffic and Pedestrian Safety Improvements This program area analyzes data on accidents. The safety aspects of the 55-mph speed limit are being evaluated. Pedestrian accident countermeasures are being identified and their effectiveness in reducing accidents evaluated. Recommendations have been developed on ways to control speed on residential streets.

Railroad Highway Grade Crossing Research The goal of this program is improving safety conditions at railroad highway grade crossings. Accident data are analyzed to develop predictions of accidents for different types of warning devices. Cost-benefit studies have also been performed to indicate whether grade crossing protections will return greater benefits for a given level of investment than will grade separation.

MOTOR CARRIER SAFETY R&D A limited amount of social research is funded in this area. The goal of this program is to reduce the incidence of truck and bus highway accidents by regulating the safety of motor carriers engaged in interstate transportation of goods and people. Optimal work-rest schedules have been developed by performance tests. The administrative feasibility of licensing physicians examining interstate commercial drivers has been studied.

General Purpose Statistics

FHWA collects accident data for commercial motor carriers involved in interstate operations. These data are collected to identify areas of high accident frequency so that regulatory safeguards can be developed or revised.

Dissemination

FHWA has an active dissemination program for the implementation of results from completed highway safety research projects. Research findings are identified and assessed for their potential benefits. If a research finding is judged to be potentially beneficial, the item is packaged, prepared, and promoted so that the user may apply it as quickly and effectively as possible.

For Further Information

See *Annual Report of Federal Highway Administration Research and Development Program*, a publication of FHWA, or write Federal Highway Administration, Office of Research and Demonstration, Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590.

FEDERAL RAILROAD ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,060	60		1,334	4,654					4,654
1976	5,273	150		3,292	8,715					8,715
1977	5,620	240		2,991	8,851					8,851

The goal of the Federal Railroad Administration (FRA) is to consolidate government support of rail transportation activities, provide a unified, unifying national policy, administer and enforce rail safety laws and regulations, and administer financial assistance programs for certain railroads. The FRA conducts research and development activities in support of improved intercity ground transportation and future transportation requirements.

Research

Social research is conducted in two major areas: railroad research and development and railroad safety.

RAILROAD RESEARCH AND DEVELOPMENT Social research focuses on the study of railroad industry problems and freight car management:

Industry Problems The FRA seeks to encourage increased service ability and efficiency in the railroad industry. Increased profitability in the railroad industry is viewed as an alternative to long-term government funding of large segments of the industry. Specific research areas are:

- *Carrier financial analysis.* Studies are conducted on how railroad operations can be made more efficient and related cost/revenue benefits can be passed on to the public.
- *Railroad network model.* Funding was increased in fiscal 1977 for the development and application of operations research and systems analysis techniques and procedures to be used in support of a broad range of network research efforts. General purpose analytical models and data bases are being developed in support of short-term network research and informational requirements.
- *Commodity service.* Commodity service analysis assesses the potential for large-scale productivity improvements in the distribution systems of rail-carried commodities.
- *Passenger service analysis.* This program involves studies to determine the criteria for establishment of rail-bus through rates and routes in specific areas.

Freight Car Management Through this program, FRA supports industry efforts to improve the use of freight cars at all levels of railroad operation. Social research is conducted on:

- *Systems analysis.* Analysis of railroad operations management and short-run policy alternatives and strategies is conducted to improve existing management capabilities.
- *Systems development.* Research is funded to develop management systems.

RAILROAD SAFETY RESEARCH Human factors analysis is the major topic of social research on railroad safety. The goal of railroad safety research is to reduce the number and severity of railroad accidents by improving human/machine interactions. Past work in the FRA human factors program has been devoted primarily to basic research (problem definition, analysis of job requirements, and systems analysis); current research is being conducted in a human factors laboratory.

Policy Formulation Demonstrations

A small demonstration is being conducted on labor and management relations. A program to improve labor-management negotiations is being tested.

General Purpose Statistics

Statistical data are collected by the FRA in the following areas.

WAYBILL STATISTICS These data contain details of shipment, costs, contents of shipments, and shipment routes. The data are used in traffic flow studies, commodity movements studies, Interstate Commerce Commission rate cases, revenue studies, safety analyses, and railroad network analyses.

COST ANALYSIS DATA As part of the railroad research and development program, cost data are collected by the FRA. The data are used in studies concerning economies of scale, production functions, and the nature of cost variability.

RAIL SAFETY INFORMATION SYSTEMS A data collection system for railroad accidents is being developed. Accident reports will be submitted to the FRA Office of Safety.

FRA GRADE CROSSING INVENTORY Data collection has been under way for several years. Examples of data collected are type of crossing, number of accidents, causes of accidents, etc. The data are used in various studies to statistically isolate apparent accident-contributing characteristics or to determine cost-ratio benefits for alternative grade crossing improvements, etc.

For Further Information

See *Annual Report on the Railroad Technology Program*, or write Federal Railroad Administration, Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	6,820	3,336		5,140	15,296	6,202	2,708	963	9,873	25,169
1976	5,841	3,301		7,646	16,788	5,602	3,802	932	10,336	27,124
1977	6,123	4,411		10,956	21,490		4,807	1,111	5,918	27,408

The National Highway Traffic Safety Administration (NHTSA) was established by Congress in 1970 to promote highway safety and reduce the number of deaths, injuries, and economic losses resulting from traffic accidents on American highways. The agency is responsible for establishing and enforcing safety standards for motor vehicles and related equipment. NHTSA also provides federal matching funds for state and local driver safety programs.

Research

NHTSA's social research largely consists of the collection and analysis of data to determine the relationship between motor vehicle characteristics, driver characteristics, and accidents. A small amount of research into driver behavior is performed. Specific areas of research are listed below.

VEHICLES-IN-USE RESEARCH This program area analyzes data on the vehicle safety of trucks, buses, and motorcycles. This data base supports the formulation of policies concerning inspection criteria.

DRUGS AND ALCOHOL RESEARCH This program area collects and analyzes data concerning the frequency of alcohol use in accidents. The objective of this program is to obtain a data base that can be used for the development of cost-effective countermeasures for accident avoidance.

DRIVER PEDESTRIAN FACTORS The objective of this program is to promote road safety by analyzing and improving the behavior of pedestrians, bicyclists, unsafe drivers, and seat belt users. Specific studies focus on how to motivate drivers and passengers to use seat belts and how to encourage safe driving behavior.

ACCIDENT DATA ANALYSES This program area provides quantitative description and analysis of highway safety problems and trends. These studies attempt to identify causation and provide information on specific injury mechanisms. The data, used in agency decision making, will provide baseline information to assess the effectiveness of NHTSA programs and standards upon U.S. accident and injury rates.

Policy Formulation Demonstrations

A major activity of NHTSA is providing information to states concerning effective highway safety programs. In order to learn what safety programs and innovations are effective, NHTSA supports several policy formulation demonstrations. Specific projects are described below:

ADVANCED COUNTERMEASURES EXPERIMENT This demonstration tested individual countermeasures to alcohol to establish the most efficient and effective countermeasure strategy. Specific countermeasures tested were: enforcement, first offense adjudication, presentence investigation and referral, probation follow-up on convicted drunken drivers, control of drunken drivers by licensing, and reeducation and rehabilitation.

TRAFFIC ENFORCEMENT Several sites were selected to test whether the level or type of traffic law enforcement had an impact on driver conduct and the number and severity of accidents.

DRIVER PROGRAMS This program consisted of testing several methods to screen out unqualified drivers. Methods tested were new driver examination criteria, diagnostic procedures, driver rehabilitation programs, and new enforcement procedures to identify suspended drivers who continue to drive. The impact of each method was evaluated.

PEDESTRIAN AND CYCLIST SAFETY This program was designed to improve the safety behavior of pedestrians and motorcyclists. Countermeasures tested were educational materials, educational programs for school children, and the development of a motorcycle safety education and training center.

General Purpose Statistics

NHTSA is responsible for collecting statistics on highway and motor vehicle safety. Figures are collected and published monthly on highway fatalities. In addition to statistics on fatalities, NHTSA is also responsible for compiling statistics on the nature of highway accidents.

The agency's fiscal 1977 increase in statistical obligations is due to the design and field test of the National Sampling Strategy statistical program. The new system is designed to provide reliable, consistent data on accident severity and accident injury causation. The data are to be used by NHTSA in standards development and regulation.

NHTSA is also developing a National Accident Reporting System, which will be a continuous sample of all personal injury and property damage accidents in which cars have to be towed. Data will be used by NHTSA to evaluate the effectiveness of countermeasure programs, determine problem areas, and track accident trends. The implementation of the system, combined with the ongoing Fatal Accident Reporting Systems, will provide NHTSA for the first time with a comprehensive data base on which to make decisions regarding the establishment of safety standards.

Policy Implementation Demonstrations

NHTSA's major policy implementation demonstration, the Alcohol Safety Action Project (ASAP), ended in fiscal 1976. Thirty-five ASAPS were funded over a six-year period. The objective of the ASAP was to reduce alcohol-related accidents and to marshall community resources to attack the problem of drinking and driving. The ASAP program demonstrated a multifaceted approach to alcohol countermeasures—the program encompassed enforcement, punitive sanctions, rehabilitation, public information and education, etc. The program encouraged the police, prosecutors, courts, and rehabilitation agencies to coordinate their efforts, compare problems, and work out solutions in a cohesive manner.

Instead of testing specific alcohol countermeasures, as was done by the Advanced Countermeasures program, the Alcohol Safety Action Project was intended to stimulate and serve as a catalyst for state and community planning and implementation of alcohol countermeasures. Since the start of ASAP, 17 states have developed and implemented comprehensive alcohol safety programs at the state level. Other states have adopted specific countermeasure programs.

Development of Materials

NHTSA also supports the development of a variety of materials. Specific materials development includes the following.

MANPOWER DEVELOPMENT This program supports the development of curriculum materials for the training of state and local highway safety managers.

DRIVER EDUCATION This program develops and tests driver education curriculum materials for secondary schools. Manuals and training materials are also prepared for state and local highway agencies on driver education.

DRIVER LICENSING This program supports the development of tests, standards, and screening techniques for identifying persons not capable of driving. The program also develops criteria of mental and physical fitness.

TWO-WHEELED VEHICLE RIDER SAFETY This program develops educational materials and safety manuals for bicycles and motorcycle safety.

Dissemination

The Alcohol Public Education program supports public information and dissemination efforts designed to increase the public's, especially young people's, awareness of the dangers of drinking and driving. NHTSA disseminates information to state and local highway agencies about highway safety programs and the results of its research and demonstration activities.

For Further Information

See *NHTSA Research and Development Programs*, a publication of NHTSA, or write National Highway Traffic Safety Administration, Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590.

OFFICE OF THE SECRETARY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	10,720		465	3,293	14,478	26	144	2,427	2,597	17,075
1976	13,233		385	6,723	20,341	277	226	3,097	3,600	23,941
1977	12,477		590	3,523	16,590	165	100	3,160	3,425	20,015

The Office of the Secretary is responsible for both the general administration of the Department of Transportation and policy development. The Department of Transportation Act of 1966 assigned the Office of the Secretary broad responsibilities for the development and coordination of national transportation policies and programs. The act authorized the office to fund research activities and studies that would directly support the secretary's policy planning responsibilities. Congress felt that such studies might be more effectively and appropriately conducted by the Office of the Secretary rather than by the operating agencies in the department.

Research

The Office of the Secretary's social research is funded in six major program areas: transportation planning, transportation policy development, policy and planning information base, university research, transportation systems development and technology, and special studies.

TRANSPORTATION PLANNING This program area yields information needed by the department to formulate future national transportation policies. Specific areas of research are:

National planning, which aims to assess the future development of the nation's transportation system under various planning assumptions and conditions; to improve existing analytical planning tools and develop new ones; and to contribute to the improvement of the overall planning capabilities of the department.

Forecasting, which develops short-, medium-, and long-term forecasting skills and models to help the department plan and evaluate alternative transportation policies.

TRANSPORTATION POLICY DEVELOPMENT This program area supports systematic research and analysis needed to develop sound policy recommendations dealing with major transportation issues. Specific areas of research are:

Research to improve service and productivity, which focuses on ways to make more effective use of the nation's existing transportation infrastructure and to improve overall service.

Economic viability of the transportation industry, which studies the government's role in fostering efficiency in the transportation sector. Specific studies have focused on railroad and airline regulation policies.

Intermodal relationships and problems, which analyzes alternative allocation patterns between different transportation modes. Specific projects include a study of federal transportation subsidies, effectiveness of user charges, and transportation regulatory reform.

Automobile benefits and costs, which analyzes alternative governmental policies toward the automobile. Specific projects include the study of the energy-intensiveness of automobiles, cost-benefit analyses of automobile use, and a survey of factors underlying intercity automobile travel.

POLICY AND PLANNING INFORMATION BASE This area provides an information base for departmental decision makers to use in identifying emerging issues and reviewing past policy and planning decisions and their effects. Specific areas of research are:

National system assessment, which supports studies to examine the relationship and impact of federal programs upon state and local transportation decision making. Specific studies include an examination of the impact of federal planning and grant requirements on state and local programs.

Development of performance measures, which supports research to identify a set of measures that can be applied by federal, state, and local governments to describe the current and future performance of the major transportation systems.

Impact analysis of BART *(Bay Area Rapid Transit in San Francisco),* which is supported to aid other jurisdictions across the nation who are contemplating or concerned about the introduction of fixed rail facilities. Many aspects of the BART experiences have been analyzed.

Fifty-five mph awareness program, which analyzes the effect of the department's mass media advertising campaign to persuade the public to adhere to the 55-mph speed limit. The public's acceptance of the law is also being evaluated.

UNIVERSITY RESEARCH The purpose of the department's university research program is to encourage the resources of the university community to be effectively brought to bear on national, state, and local transportation problems, with specific attention to national problems. The program supports university research programs, team research projects, individual research projects, and university-based seminars. Specific areas of research include transportation policy, regulation and finance, transportation system improvements, transportation technology, and transportation safety.

TRANSPORTATION SYSTEMS DEVELOPMENT AND TECHNOLOGY This program area is primarily concerned with technological research and development. Topics of technology R&D include pollution control, fuel conservation, transportation construction costs, etc. Social research supports an assessment of energy-efficient vehicles in the highway system, which examines the socioeconomic impact of the introduction of the fuel-efficient vehicle in the nation's automotive fleet. Simulation models are developed for the projection of consumer vehicle needs with regard to durability, passenger and baggage capacity, and performance. Supply and demand studies are also performed.

SPECIAL PROGRAMS This program area supports the activities of the assistant secretary for environment, safety, and consumer affairs. Research is supported on environmental affairs, a program area concerned with assisting in the development, monitoring, and coordination of departmental policies, programs, and activities relating to the broad environmental and social aspects of transportation. Specific project areas include: transportation of the handicapped and elderly; transportation measures to achieve and maintain air quality; effects of land use and coastal zone management plans on transportation systems; and transportation alternatives to and within national parks and national forest recreation areas.

Other special programs that support a limited amount of social research are transportation security and facilitation affairs.

Program Evaluation

Program evaluation activities have focused on an analysis of the department's R&D Management Program. These studies enable the department to update and revise its R&D management system. Evaluations are also conducted to assess the effect of department research on the implementation of transportation policy.

General Purpose Statistics

The largest statistical program in the department is the National Transportation Data Base. This data base provides the department, other federal agencies, states, and industry with comprehensive and consistent statistical information on transportation activity throughout the country. Data are collected on: person movement (air passenger travel, intercity travel) and commodity movement (National Shipper Survey, Truck Commodity Flow, Foreign Commodity Travel).

Other departmental statistical collections include:

- Transportation Safety Information System, which is designed to collect data for intermodal safety comparison and the development of safety performance trends.
- U.S. Cargo Data Interchange System, which is designed to provide an information system on domestic and international cargo shipments.
- Cargo Loss Data, Analysis, and Estimates, which prepares and presents data concerning cargo theft by city, commodity, and cause of loss.

The decrease in general purpose statistics between fiscal 1976 and fiscal 1977 is accounted for by the completion of the national system assessment data collection. Data were gathered from state and local governments regarding their transportation expenditures and the levels of expenditures programmed through 1980.

Policy Implementation Demonstrations

A small demonstration program was supported on consumer education in transportation. Transportation Awareness Clinics were held in schools to instill an awareness in the education community of the importance of transportation to consumers and the need for effective consumer education programs in transportation.

Development of Materials

A series of handbooks was prepared concerning environmental analysis of highway and airport projects. The handbooks contain guidelines on how to prepare environmental impact statements for such projects.

Dissemination

The largest component of the department's dissemination program is the Transportation Research Activity Information Service, which is an advanced information retrieval service that contains all the R&D projects supported by the department. Its major audience is the department's R&D staffs.

The department also supports Project TRISNET (the Transportation Research Information Services Network), which aims at developing a network of federal, state, and private technical information services. When fully developed, TRISNET will consist of regional document repositories and technology application centers that are supported by a common computerized data base of technical abstracts and descriptions of ongoing projects.

In addition to the information retrieval systems, the department also supports a Technology and Knowledge Sharing Program, which is concerned with the transfer of R&D results to users across the nation. The program also supports studies of transportation R&D needs.

For Further Information

To obtain information on the university research program, write Office of University Research, Office of the Secretary (TST-60), Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590. For information on all other programs supported by the Office of the Secretary, write Office of the Secretary, Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590.

U.S. COAST GUARD

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	762			100	862		134		134	996
1976	889			100	989		93		93	1,082
1977	1,350		300	100	1,750		195		195	1,945

The U.S. Coast Guard, which became a component of the Department of Transportation in 1967, is both an agency in the department and a branch of the Armed Forces of the United States. In addition to its armed forces responsibilities, the Coast Guard has these responsibilities: search and rescue, law enforcement, marine environmental protection, Coast Guard Auxiliary, and merchant marine safety.

Research

Small amounts of research are funded in several areas.

FUTURE TECHNOLOGY To ensure continuing responsiveness over the next 10 to 15 years, research is funded to monitor emerging technologies and identify potential future capabilities that may contribute to improved productivity and the effectiveness of mission performance. Economic studies and analyze cost-benefit factors associated with emerging technologies.

RECREATIONAL BOATING SAFETY Quantitative studies are performed to analyze risks associated with vessel safety, human factors, and materials. These studies assist in the development of Coast Guard regulations.

IMPROVING MARINE ENVIRONMENTAL PROTECTION A limited amount of research is funded on port activity planning. In order to plan port activity and safety requirements, studies are conducted to forecast capability for ports and waterway use.

Program Evaluation

In fiscal 1977, an evaluation was funded to study the effect of the Coast Guard's energy conservation activities.

General Purpose Statistics

The Federal Boating Safety Act of 1971 required that the Coast Guard conduct a series of nationwide boating surveys. The survey assesses the number of boating accidents and fatalities. The data are used to analyze the causes of accidents and those measures that have the potential for accident reduction.

Development of Materials

Educational materials are developed concerning boating safety.

For Further Information

Write U.S. Coast Guard, 400 Seventh Street, S.W., Washington, D.C. 20590.

URBAN MASS TRANSPORTATION ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	3,243	3,929	960	944	9,076	9,450	1,202	2,531	13,183	22,259
1976	4,524	5,476	1,000	2,718	13,718	3,784	2,442	3,630	9,856	23,574
1977	5,009	12,400	1,000	3,067	21,476	7,700	3,057	3,866	14,623	36,099

The mission of the Urban Mass Transportation Administration (UMTA) is to assist in the development of improved transportation facilities, equipment, techniques, and methods. UMTA provides assistance to state and local governments for the planning and establishment of area-wide urban mass transportation systems. In fiscal 1977, UMTA had the largest social knowledge production and application obligations of any agency in the Department of Transportation. The agency conducts knowledge production and application activities on all phases of urban mass transportation. The goal of UMTA R&D is to assist in the reduction of urban mass transportation needs, to improve mass transportation service, and to help meet total urban transportation needs at minimum cost.

Research

The social research activities of UMTA are conducted in three programs: research, development, and demonstration; the technical studies program; and the university research and training program.

RESEARCH, DEVELOPMENT, AND DEMONSTRATION The general purpose of this program is to provide knowledge about alternative technologies (including the social and economic feasibility of those technologies) that can be used to improve mass transportation service. This knowledge can then be applied by policy makers at the various levels of government. Specific areas of social research are described below.

New Systems and Automation While this program is largely concerned with the development and testing of advanced modes of urban transportation service, one part of the program has analyzed the social, economic, and environmental aspects of Automated Guideway Transit systems.

Policy Development and Program Evaluation The objective of this program is to develop a better understanding of emerging urban transportation problems and requirements and to improve capability to assess the costs, impacts, and effectiveness of alternative transportation problems. This program has the following major components:

- research on alternative mass transit investment policies of the federal government;
- studies in support of transportation system management policies; and
- research on policies, procedures, and programs to carry out UMTA's legislative mandates.

Management Techniques and Methods This area is concerned with assisting public transportation operators in improving their management and operational effectiveness and efficiency. Social research is conducted on ways to evaluate manpower needs and improve management training.

TECHNICAL STUDIES (SYSTEMS ANALYSIS AND EVALUATION) In this program, UMTA provides planning assistance to state, metropolitan, and local governments. This program contains a special studies component that examines the impact of new urban transportation systems, such as the Bay Area Rapid Transit (BART) System in San Francisco and the Morgantown Automated Guideway Transit System. These studies examine the effects of such transit systems on an area's travel behavior, land use, environment, energy, life styles, and institutions.

UNIVERSITY RESEARCH AND TRAINING GRANTS This program supports a small grants program aimed at the solution of urban transportation problems by encouraging and expanding the relationships between the university and local urban transportation agencies. In many respects, the program is similar to the university grants program sponsored by the Office of the Secretary.

Policy Formulation Demonstrations

This is the largest knowledge production and application activity in UMTA. The policy formulation demonstrations are funded through the Research, Development, and Demonstrations program as two major types: experimental demonstrations and exemplary demonstrations. The experimental demonstrations have been categorized as policy formulation demonstrations, while the exemplary demonstrations have been categorized as policy implementation demonstrations (discussed below).

Experimental demonstrations can be viewed as the "research" for the exemplary demonstrations. This type of demonstration focuses on testing specific questions or providing particular services, rather than adopting the more comprehensive service philosophy as seen in exemplary demonstration programs. Thus, the purpose of experimental demonstrations is to develop and test concepts to the point at which they merit widespread use. Innovative ideas and novel approaches to mass transit services are tested; if proven successful, they then become exemplary demonstrations. (It should be emphasized that services, rather than technologies, are being tested and thus qualify for inclusion in this survey. Technological demonstrations have been excluded.) Examples of experimental demonstration projects planned for fiscal 1977 include:

- testing the concept of auto-free or auto-restricted zones in downtown areas;
- testing the concept of designating the most congested zones of downtown areas as "priced areas" and developing a charge system for using cars in those areas;
- testing the feasibility of using waterways to carry commuters;
- testing the "Shared-Ride Auto Service," a project that will license private automobile operators to carry passengers on commuter trips between well-defined origins and destinations; and

○ a "price and service level" demonstration, which will identify the price and service levels that cause significant increases in transit ridership, especially noting increases from previous automobile users and the shift to off-peak transit use.

Program Evaluation

The "special studies" components in the Technical Studies program support several activities that can be termed program evaluations. The program has been used to evaluate and develop UMTA policies as they relate to the improvement of the transit planning process. Such studies include an evaluation of transportation impact studies on a nationwide basis and an assessment of the relationship of those studies to the ongoing transportation planning process.

It should be noted that many of the demonstration projects have a clear evaluation component that is included in the cost of the demonstration. In addition, some of UMTA's research projects could be termed "evaluation research." Those projects were judged to be more appropriately categorized as research than as program evaluation.

General Purpose Statistics

UMTA conducts a series of travel surveys deemed essential to support the department's analysis and evaluation activities. In fiscal 1977, the three surveys described below were conducted in cooperation with the Federal Highway Administration and the Office of the Secretary.

TRAVEL-TO-WORK SURVEY This survey is designed to generate information on commuter travel, such as modal choice, origin and destination locations, trip length and duration, and travel behavior.

NATIONWIDE PERSONAL TRAVEL SURVEY This survey will complement the survey of travel-to-work by including data on all trips other than commuting travel.

FINANCE STATISTICS SURVEY UMTA, in conjunction with the Federal Highway Administration, conducts an annual survey of state and local governmental units to obtain public investment and program information regarding highway and transit activities. The surveys enable UMTA to monitor and analyze transportation financing and investment patterns of state and local governments.

In addition, UMTA supports an operational data collection system, which is still in the developmental stage. Once established, the reporting system will enable UMTA to monitor the performance, efficiency, and level of service of transportation systems throughout the nation.

Policy Implementation Demonstrations

As noted above, UMTA supports experimental and exemplary demonstrations. The first type, experimental demonstrations, have been categorized as policy formulation demonstrations. The second type, exemplary demonstrations, are excellent examples of policy implementation demonstrations. Exemplary demonstrations serve a change-agent role and seek to bring about widespread diffusion of relatively proven concepts and techniques. Some of the exemplary demonstration projects planned for fiscal 1977 include:

- integrated fixed-route and demand-responsive projects, which include a series of demonstrations that will go beyond the conventional, self-contained, dial-a-ride service and demonstrate the integration of bus and taxi demand-responsive service;
- subscription service projects in areas in which commuters cannot be served conveniently or economically by conventional fixed-route transit; thus, subscription services may be needed to increase vehicle occupancies and decrease the number of single-occupant efforts;
- a series of demonstrations to demonstrate ways in which the transportation needs of those unable to afford or to use an automobile (the young, old, poor, handicapped, and unemployed) can be met; several demonstrations are planned in conjunction with local social service agencies; and
- a group of "corridor" demonstrations to promote successful traffic management techniques that address the problem of peak-hour congestion and people movement in heavily trafficked urban corridors (e.g., express bus lanes and service, etc.)

Development of Materials

UMTA supports the development of handbooks, planning models and guidelines, simulation models, and computer software concerned with "area-wide demand-responsive transit." Case study materials are also prepared in disseminating the lessons learned from locally initiated integration of areawide demand-responsive and fixed-route services.

There are several other programs in UMTA that support the development of materials. The Human Resources and Technical Development program supports the development of curriculum and training materials for public transportation managers. This program also assists the transit industry in the development of testing techniques and practices related to organizational and employee development activities. Finally, the University Research and Training program supports the development of courses and curriculum materials for classes in urban transportation.

Dissemination

UMTA supports a variety of dissemination activities. The Planning, Methodology, and Technical Support program disseminates materials and techniques to assist federal, state, and local agencies in the planning, implementation, and operation of urban transportation systems. A package of computer-based tools for multimodel transportation planning, the Urban Transportation Planning Systems, is actively disseminated by UMTA through training sessions and technical assistance activities. The package is a planning model that analyzes long-range transportation policy impacts, such as land development, transportation system costs, levels of service, corridor travel volumes, and energy use.

Technical assistance is also provided by several other programs. Various components in the Management Techniques and Methods program provide technical assistance to state and local transportation agencies. Software products are widely disseminated through technical assistance activities.

The Technical Studies Program also has a major program of technical assistance, through which it makes direct grants to state governments to deliver technical assistance to cities. The program attempts to make states the focal point for developing management technical assistance. Through this program, states provide training courses, seminars, and materials to localities.

For Further Information

See *Innovation in Public Transportation*, a description of research, development, and demonstration funded by UMTA, or write Urban Mass Transportation Administration, 400 Seventh Street, S.W., Washington, D.C. 20590.

18 Department of the Treasury

The U.S. Department of the Treasury supports relatively little social knowledge production and application. Of the 12 cabinet departments, only the Department of the Interior obligates less for social knowledge production and application activities. In fiscal 1977, the Department of the Treasury obligated $25 million for social knowledge production and application, of which half went for general purpose statistics. Nearly all the $12 million obligated for research activities by the department was used for work performed in-house.

While the Treasury Department funds little research directly, it has long been a major user of economic research and econometric methodology. Instead of contracting for research, the department hires economists with academic backgrounds, who are familiar with the academic literature and who frequently consult their academic colleagues. Because of its preference for in-house research, the department ranks relatively low among departments in funding knowledge production activities.

SOCIAL KNOWLEDGE PRODUCTION AND APPLICATION ACTIVITIES

Table 18-1 presents the distribution of the department's social knowledge production and application activities. No knowledge application

TABLE 18-1 Department of the Treasury Social Knowledge Production and Application Activities ($millions)

Activity	Fiscal 1975	Fiscal 1976	Fiscal 1977
Knowledge production			
Research	20.2	10.8	12.1
	(60.7)[a]	(42.4)	(46.9)
Policy formulation demonstrations			
Program evaluation			
General purpose statistics	13.1	14.6	13.7
	(39.3)	(57.6)	(53.1)
Total	33.2	25.4	25.9
	(100.0)	(100.0)	(100.0)
Knowledge application			
Policy implementation demonstrations			
Development of materials			
Dissemination			
Total			
TOTAL	33.2	25.4	25.9
	(100.0)	(100.0)	(100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are column percentages.

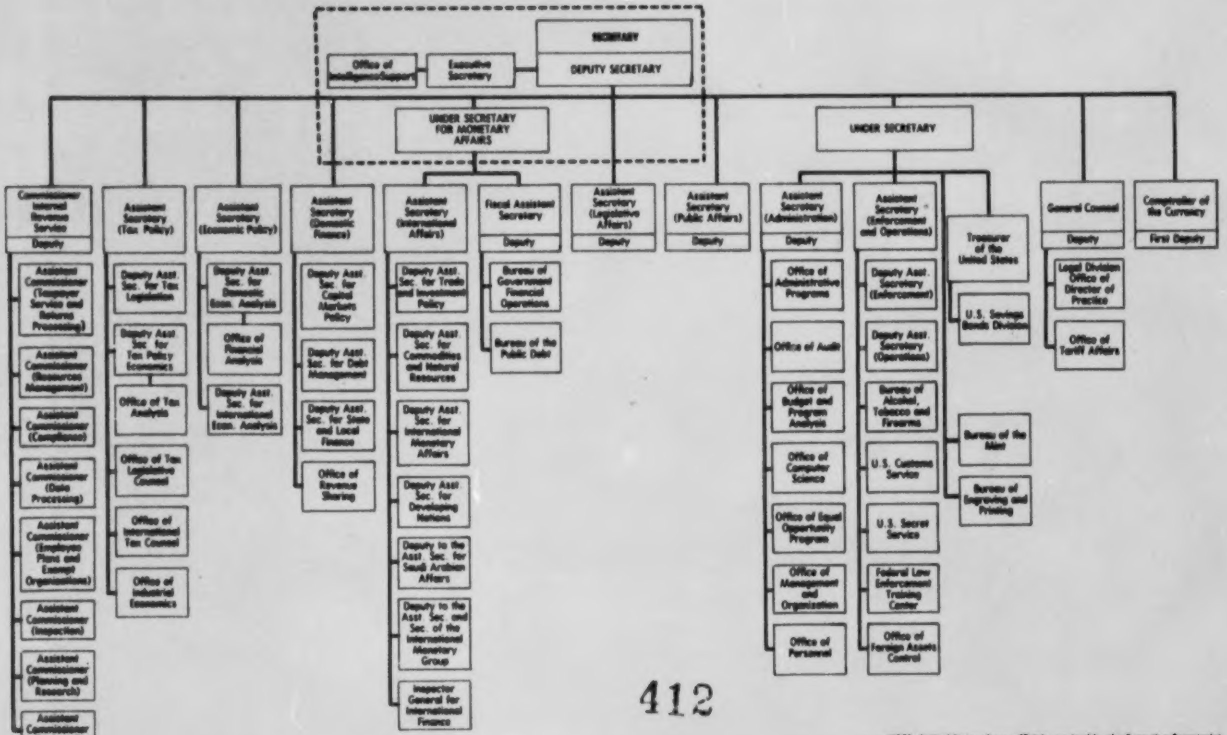
activities were found in the department; this is explained by the fact that it has, almost exclusively, a federal focus and funds no third-party research. (Knowledge application activities are strongly associated with agencies having third parties as their major audience.)

The knowledge production activities in the Treasury Department are split almost evenly between research and general purpose statistics. Research is supported by the various assistant secretary offices and the Internal Revenue Service (IRS). General purpose statistics are collected by the IRS and the U.S. Customs Service. The decline between fiscal 1975 and fiscal 1977 in the percentage of funds for research is accounted for by a decline in research supported by the IRS.

ORGANIZATION OF THE DEPARTMENT

Figure 18-1 is an organizational chart of the department indicating the offices or bureaus that support knowledge production activities.

Table 18-2 lists the three Department of the Treasury agencies that fund social knowledge production and application activities. The cate-


SECRETARY
DEPUTY SECRETARY
Office of Intelligence Support
Executive Secretary
UNDER SECRETARY FOR MONETARY AFFAIRS
UNDER SECRETARY
Commissioner Internal Revenue Service
Deputy
Assistant Commissioner (Taxpayer Service and Returns Processing)
Assistant Commissioner (Resources Management)
Assistant Commissioner (Compliance)
Assistant Commissioner (Data Processing)
Assistant Commissioner (Employee Plans and Exempt Organizations)
Assistant Commissioner (Inspection)
Assistant Commissioner (Planning and Research)
Assistant Commissioner (Technical)
Assistant Secretary (Tax Policy)
Deputy Asst. Sec. for Tax Legislation
Deputy Asst. Sec. for Tax Policy Economics
Office of Tax Analysis
Office of Tax Legislative Counsel
Office of International Tax Counsel
Office of Industrial Economics
Assistant Secretary (Economic Policy)
Deputy Asst. Sec. for Domestic Econ. Analysis
Office of Financial Analysis
Deputy Asst. Sec. for International Econ. Analysis
Assistant Secretary (Domestic Finance)
Deputy Asst. Sec. for Capital Markets Policy
Deputy Asst. Sec. for Debt Management
Deputy Asst. Sec. for State and Local Finance
Office of Revenue Sharing
Assistant Secretary (International Affairs)
Deputy Asst. Sec. for Trade and Investment Policy
Deputy Asst. Sec. for Commodities and Natural Resources
Deputy Asst. Sec. for International Monetary Affairs
Deputy Asst. Sec. for Developing Nations
Deputy to the Asst. Sec. for Saudi Arabian Affairs
Deputy to the Asst. Sec. and Sec. of the International Monetary Group
Inspector General for International Finance
Fiscal Assistant Secretary
Deputy
Bureau of Government Financial Operations
Bureau of the Public Debt
Assistant Secretary (Legislative Affairs)
Deputy
Assistant Secretary (Public Affairs)
Deputy
Assistant Secretary (Administration)
Deputy
Office of Administrative Programs
Office of Audit
Office of Budget and Program Analysis
Office of Computer Science
Office of Equal Opportunity Program
Office of Management and Organization
Office of Personnel
Assistant Secretary (Enforcement and Operations)
Deputy Asst. Secretary (Enforcement)
Deputy Asst. Secretary (Operations)
Bureau of Alcohol, Tobacco and Firearms
U.S. Customs Service
U.S. Secret Service
Federal Law Enforcement Training Center
Office of Foreign Assets Control
Treasurer of the United States
U.S. Savings Bonds Division
Bureau of the Mint
Bureau of Engraving and Printing
General Counsel
Deputy
Legal Division Office of Director of Practice
Office of Tariff Affairs
Comptroller of the Currency
First Deputy

— — NOTE: Dotted line encloses officials serviced by the Executive Secretariat

FIGURE 18-1 Department of the Treasury organizational chart.

TABLE 18-2 Department of the Treasury Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Production and Application Obligations	Predominant Social Knowledge Production and Application Activity	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]
Internal Revenue Service	15.5	General purpose statistics	Operating agency	Improvement of federal programs
Departmental Activities[b]	7.1	Research	Policy-making office	Improvement of federal policies
U.S. Customs Service	3.2	General purpose statistics	Operating agency	Improvement of federal programs
TOTAL	25.8			

[a] See Chapter 2 for a more detailed discussion.

[b] Includes the offices of the assistant secretaries in the Department of the Treasury.

gory "departmental activities" refers to the activities of the offices of the assistant secretaries. All of the activities of the department are oriented toward improving either federal policies or programs.

POLICY AREAS IN THE DEPARTMENT

Table 18-3 presents the agencies in which social knowledge production and application activities are funded by policy area. Nearly 75 percent of the activities supported by the Department of the Treasury involves the policy area of economic growth. The remaining 25 percent is in the area of international affairs.

TABLE 18-3 Department of the Treasury Agencies: Social Knowledge Production and Application Activities by Policy Areas (fiscal 1977, $millions)

Agency	Employment and Training	Economic Growth	International Affairs	Energy Development and Environment	TOTAL
Internal Revenue Service		15.5 (100.0)[a]			15.5 (100.0)
Departmental activities	0.1 (1.7)	3.5 (49.3)	3.0 (42.0)	0.5 (7.0)	7.1 (100.0)
U.S. Customs Service			3.2 (100.0)		3.2 (100.0)
TOTAL	0.1 (0.5)	19.0 (73.6)	6.2 (24.0)	0.5 (1.9)	25.8 (100.0)

Numbers may not total due to rounding.

[a] Numbers in parentheses are row percentages.

INTERNAL REVENUE SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	13,387			9,908	23,295					23,295
1976	3,677			11,430	15,107					15,107
1977	5,007			10,537	15,544					15,544

The Internal Revenue Service (IRS) is responsible for administering and enforcing internal revenue laws. Its primary mission is to encourage and achieve the highest possible degree of voluntary compliance with tax laws and regulations. In connection with that mission, the IRS is responsible for determining the extent of compliance and the causes of noncompliance.

Research

The major research activity of the IRS is the Taxpayer Compliance Measurement Program (TCMP), which measures the voluntary compliance tax system for effectiveness. Surveys of tax returns are based on random samples. The program gathers and analyzes information concerning levels of taxpayer compliance and identifies areas in need of additional enforcement. TCMP is part of the long-range research program designed to assist IRS in evaluating its program. In addition to measuring levels of compliance, the data produced under TCMP are used to improve the efficiency and effectiveness of existing operations. TCMP is funded in various stages. The large fiscal 1975 obligations represent major TCMP studies in that year; fewer studies were funded in fiscal 1976 and fiscal 1977.

General Purpose Statistics

The IRS is responsible for preparing several annual statistical reports concerning tax returns. These statistics provide basic information to Congress, the Treasury Department, the commissioner of the IRS, and other executive agencies. The IRS data serve as benchmark statistics on income, wealth, and finance and are used extensively by the Office of Tax Analysis in the Treasury Department.

The annual statistical report on individual income tax returns presents aggregated data, such as sources of income, adjusted gross income, exemptions, deductions, taxable income, and tax credits. Annual reports are published on corporation and business income tax returns. Comprehensive annual financial data are published for corporations. Special tabulations of data from corporation tax returns, such as corporation foreign income, are a major source of business statistics. Selected special studies on income tax data are also published by IRS.

For Further Information

Write Internal Revenue Service, Department of the Treasury, 1111 Constitution Avenue, N.W., Washington, D.C. 20224.

U.S. CUSTOMS SERVICE

Social Knowledge Production and Application Obligations ($thousands)

Fiscal Year	Knowledge Production Activities					Knowledge Application Activities				TOTAL
	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	
1975				3,156	3,156					3,156
1976				3,205	3,205					3,205
1977				3,205	3,205					3,205

The U.S. Customs Service, an enforcement arm of the Department of the Treasury, has the authority to collect and protect the revenues related to U.S. imports. The agency enforces customs and related laws and has responsibility for the processing and regulating of people, carriers, cargo, and mail into and out of the United States.

General Purpose Statistics

The Customs Service collects and analyzes statistics to verify import trade data. The data collected are used to analyze trade patterns by country and commodity; they serve as a base for evaluating U.S. trade policy as well as for studying the impact of trade on the domestic economy. The Customs Service data are also used for making balance of payment calculations.

For Further Information

Write U.S. Customs Service, 1301 Constitution Avenue, N.W., Washington, D.C. 20229.

DEPARTMENT OF THE TREASURY: DEPARTMENTAL ACTIVITIES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	6,785				6,785					6,785
1976	7,095				7,095					7,095
1977	7,135				7,135					7,135

Research

Intramural social research, primarily economic, is supported in six assistant secretary offices.

ASSISTANT SECRETARY FOR TAX POLICY The Office of the Assistant Secretary for Tax Policy is responsible for the formulation and execution of domestic and international tax policies and programs. The Office of Tax Policy prepares analyses of proposed tax legislation, assembles statistical and analytical materials for use in the formulation of tax programs, and analyzes the effects of alternative tax programs or measures in light of economic and budgetary requirements. The office makes projections on how economic trends might affect tax bases and frequently uses simulation models of the tax system to do so. The Office of Industrial Economics analyzes depreciation policies and provides the knowledge base necessary for the formulation of industrial tax policies.

ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS The Office of the Assistant Secretary for International Affairs advises and assists the secretary of the treasury and under secretary for monetary affairs in the formulation and execution of international financial, economic, monetary, commercial, energy, and trade policies and programs. The Office of the Deputy Assistant Secretary for Research provides economic data and analysis assisting in the formulation of international economic policy. The Office of Assistant Secretary for Energy Investment Policy examines the international aspects of energy policy.

ASSISTANT SECRETARY FOR CAPITAL MARKETS AND DEBT MANAGEMENT The Office of the Assistant Secretary for Capital Markets and Debt Management advises and assists the secretary and under secretary on debt management, federal financing, the financing of nonfederal sectors of the economy, and general capital markets policy. The office has assumed the responsibilities of the Office of Debt Analysis, which was abolished in 1976. The office collects and analyzes information concerning securities; the financial market is analyzed to determine the potential effects of raising the debt ceilings on various institutions.

ASSISTANT SECRETARY FOR ECONOMIC POLICY The Office of the Assistant Secretary for Economic Policy informs the secretary and other government officials on economic developments and assists in determining appropriate economic policies. The Office of Financial Analysis is responsible for the review and analysis of current and prospective developments in the economy and financial markets. The office develops economic projections and undertakes a wide range of special projects.

ASSISTANT SECRETARY FOR ENFORCEMENT, OPERATIONS, AND TARIFF AFFAIRS The Office of Foreign Assets accumulates and analyzes information on foreign countries necessary to enable the department to set trade, tariff, and taxation policies. The office also analyzes the level of foreign investments in major U.S. industries.

ASSISTANT SECRETARY FOR ADMINISTRATION The Office of Equal Opportunity Programs is responsible for ensuring that banks holding deposits of U.S. government funds comply with federal policies and regulations for equal employment. This program supports very little research.

For Further Information

Write the appropriate assistant secretary, Department of the Treasury, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

19 Independent Regulatory Agencies

The Study Project surveyed nine agencies, commonly known as independent regulatory agencies, that totaled $15.7 million in social knowledge production and application obligations in fiscal 1977. Most of the research activities were conducted in-house and were economic in nature. The average independent regulatory agency obligated $1.7 million in social knowledge production and application. The survey found that the independent regulatory agencies are making wide use of econometric techniques in their day-to-day activities. Table 19-1 lists the nine independent regulatory agencies surveyed and their estimated fiscal 1977 obligations. (Another independent regulatory agency, the Federal Power Commission, was surveyed prior to its transferral to the Department of Energy; it is discussed in Chapter 7.)

TABLE 19-1 Independent Regulatory Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]	Predominant Policy Area
U.S. International Trade Commission	4.6	Operating agency	Improvement of federal programs	Economic growth/international affairs
Federal Trade Commission	3.1	Operating agency	Improvement of federal programs	Economic growth
Interstate Commerce Commission	2.3	Operating agency	Improvement of federal programs	Transportation
Consumer Product Safety Commission	1.8	Operating agency	Improvement of federal programs	Health
Nuclear Regulatory Commission	1.5	Operating agency	Improvement of federal programs	Energy development and conservation
Federal Home Loan Bank Board	0.8	Operating agency	Improvement of federal programs	Economic growth
Federal Communications Commission	0.7	Operating agency	Improvement of federal programs	Transportation
Civil Aeronautics Board	0.5	Operating agency	Improvement of federal programs	Transportation
Securities and Exchange Commission	0.4	Operating agency	Improvement of federal programs	Economic growth
TOTAL	15.7			

[a] See Chapter 2 for a more detailed discussion.

CIVIL AERONAUTICS BOARD

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	417				417					417
1976	456				456					456
1977	483				483					483

The Civil Aeronautics Board (CAB) promotes and regulates the civil air transport industry within the United States and between the United States and foreign countries. The CAB grants licenses to provide air transport services, approves or disapproves proposed rates and fares, and approves or disapproves proposed agreements and corporate relationships involving air carriers. A major responsibility is regulating the economic aspects of domestic and international air carrier operations.

Research

The research activities of the CAB are performed intramurally by its Bureau of Economics. The bureau's research is primarily concerned with the economics of the air carrier industry. Although research is undertaken primarily in connection with the CAB's regulatory functions, the research results are presented in recurring and special reports for use by other federal agencies, the air carrier industry, and the general public.

A major responsibility of the bureau is obtaining basic financial, traffic, and operational data from air carriers, which are analyzed by bureau staff. Those figures provide the essential data base for staff analytical studies and for studies within and outside the CAB on the operation, financial conditions, and prospects of the air transport industry.

For Further Information

Write Civil Aeronautics Board, 1825 Connecticut Avenue, N.W., Washington, D.C. 20428.

CONSUMER PRODUCT SAFETY COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,651				2,651					2,651
1976	2,154				2,154					2,154
1977	1,840				1,840					1,840

The Consumer Product Safety Commission was established in 1972 as an independent regulatory agency for the purpose of reducing unreasonable risks of injury associated with consumer products. The commission's prime responsibility is establishing mandatory product safety standards. The commission also has the authority to ban hazardous consumer products. In addition, the commission is authorized to conduct extensive research on consumer product standards, engage in broad consumer and industry information and education programs, and establish a Comprehensive Injury Information Clearinghouse.

Research

A major activity of the commission is the study of the incidence of injuries related to consumer products. These injuries are reported through the National Electronic Injury Surveillance Systems. The data are systematically analyzed in-house to evaluate the nature and relative importance of specific and generic hazards associated with consumer products.

The commission funds a series of surveys concerned with consumer product safety. One survey, cosponsored by the National Bureau of Standards and the Bureau of the Census, sought to determine the nature, frequency, and severity of fires caused by household products and flammable fabrics. Another survey, cosponsored by the National Center for Health Statistics, sought to obtain data on the circumstances and products involved in accidental injuries.

Another major research activity of the commission is the development of a model to collect data on the costs of injuries related to consumer products by population characteristics. The injury cost study model will enable the commission to estimate injury costs that specific population groups are expected to incur from the use of specific consumer products. A related activity—the accident cost study—was undertaken to develop economic methods for identifying causal factors and assessing the cost-effectiveness of proposed remedial approaches.

For Further Information

Write Consumer Product Safety Commission, 1111 Eighteenth Street, N.W., Washington, D.C. 20207.

FEDERAL COMMUNICATIONS COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	461				461					461
1976	968				968					968
1977	701		40		741					741

The Federal Communications Commission (FCC) is responsible for regulating interstate and foreign communications. The scope of regulation includes radio and television broadcasting; telephone, telegraph, and cable television operations; two-way radio and other radio operations; and satellite communications. The FCC is responsible for the orderly development and operation of broadcast services and the provision of rapid, efficient, nationwide and worldwide telephone and telegraph services at reasonable rates.

Research

Economic research is performed in various bureaus of the FCC rather than in one central location. All the bureaus (the Broadcast Bureau, the Cable Television Bureau, the Common Carrier Bureau, and the Safety and Special Radio Services Bureau) were surveyed and their economic research ascertained.

The primary objective of the FCC research activity is to improve the commission's capacity to resolve numerous complex issues and technical problems involving all aspects of telecommunications. The commission contracts for extramural research when special skills and training are needed to develop and analyze complex technical, economic, or sociological factors involved in FCC decision making. Examples of FCC social research include:

- a study of the common carrier industry structure to develop a methodology for measuring the levels of economies of scale in different product lines;
- an examination of the effect that new technologies (such as domestic satellites, cable television, and high resolution receivers) will have on the television industry during the next 10-15 years;
- a study of financial models for urban cable TV systems to develop estimates of the demand and cost for cable television systems operating in large metropolitan markets;
- an assessment of how telecommunications technology (i.e., telephone, television, radio, land and aeronautical mobile radio, cable television, and computers) can best be used to accomplish social goals; and
- forecast of demand for international communications services.

For Further Information

Write Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554.

FEDERAL HOME LOAN BANK BOARD

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	663				663					663
1976	782				782					782
1977	829				829					829

The Federal Home Loan Bank Board formulates policies for and supervises the operation of 12 regional Federal Home Loan Banks, the Federal Savings and Loan System, and the Federal Savings and Loan Insurance Corporation. It is responsible for the examination of all federal savings and loan associations and for the examination and supervision of all state-chartered institutions insured by the Federal Savings and Loan Insurance Corporation.

Research

Research is performed by the board's Office of Economic Research in support of its regulatory mission. The office has the following responsibilities: (1) The development and maintenance of a program in basic and applied research designed to increase the understanding of the savings and loan industry and the savings and mortgage markets in which it operates. (2) The development and maintenance of a statistical and econometric program designed to provide current information to the board and to make more current and effective research possible. Econometric and economic models are being designed for the analysis of savings flows, mortgage flows, and housing starts. Other models are being developed to analyze savings and loan behavior with regard to borrowing from the Federal Home Loan Bank systems and general management behavior. Simulations of savings and loan behavior are also being used to help the bank system understand the structure of the industry better and to help the savings and loan industry anticipate future needs. (3) Economic analyses and critiques of ongoing and proposed board policies, regulations, and legislation for board use. (4) Monitoring general economic and financial developments so as to provide the board with adequate, updated knowledge of the economic environment necessary for the formulation and execution of policy. The office has prepared general economic reports basically concerned with the housing, savings, and mortgage markets.

Papers have been prepared either by or for the Office of Economic Research on: simulated results of permitting savings and loan associations to offer consumer credit and checking account services; the pricing and marketability of variable rate mortgages; the development of a savings and loan performance predictor system for associations; and an application of time series models and a regional analysis for forecasting short-term savings deposit flows.

For Further Information

See *List of Research Working Papers* (April 1976), a publication of the Office of Economic Research, or write Federal Home Loan Bank Board, 320 First Street, N.W., Washington, D.C. 20552.

FEDERAL TRADE COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,564		19		1,583					1,583
1976	2,369		84		2,453					2,453
1977	2,217		908		3,125					3,125

The Federal Trade Commission (FTC), established to deal with trade practices on a continuing and corrective basis, is charged by law with ensuring that competition in the marketplace is vigorous, free, and fair. This is accomplished by eliminating threats to fair and honest competition from all sources, both public and private. The goal of the agency is to protect the public and the consumer against competitive behavior and unfair and deceptive business practices.

Research

The FTC's research activities are conducted by its Bureau of Economics. The bureau conducts a far-ranging program of research on the economic functioning of the United States's industrial and commercial economy. The bureau's program of research includes studies of the structure, behavior, and performance of various major industries; work on the economics of price setting during periods of inflation and recession; assessment of potential economic benefits to consumers from FTC activities; research on the economics of advertising and consumer information. Other research topics are described below.

ENERGY Economic analysis focuses on the structure, conduct, and performance of several energy industries and the consequences of the actions of those industries to the public.

MARKET STRUCTURE STUDIES These studies deal with the relationship between market structure (buyer and seller concentration, degree of product differentiation, etc.) and performance (profitability, efficiency, progressiveness, etc.). The general objective of this research is to provide a better understanding of the structural characteristics of industry that are associated with competitive problems.

INDUSTRY STUDIES The goal of industry studies is to identify and analyze current or potential areas of market failure—industries whose performance is notably different—and to identify possible remedies.

Program Evaluation

A large increase in this activity was expected in fiscal 1977. The program evaluation activities of the FTC are conducted by the Office of Policy Planning and Evaluation. The office is now increasing its use of cost-benefit analyses as one major criterion in making resource allocation decisions among various FTC programs. The office is also evaluating the effectiveness of FTC programs. In addition, the office assesses the results and the effect of completed programs and cases in terms of their cost-effectiveness.

For Further Information

Write Federal Trade Commission, Pennsylvania Avenue at Sixth Street, N.W., Washington, D.C. 20580.

INTERSTATE COMMERCE COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,418				1,418					1,418
1976	1,991				1,991					1,991
1977	2.281				2.281					2,281

The Interstate Commerce Commission (ICC) regulates the economic aspects of surface transportation in interstate and foreign commerce. Surface transportation under the jurisdiction of the ICC includes railroads, trucking companies, bus lines, water carriers, oil pipelines, transportation brokers, and express agencies. While the regulatory laws vary with the type of transportation, ICC responsibilities generally involve certification of carriers seeking to provide transportation for the public. In addition, the ICC ensures that regulated carrier industries provide the public with rates and services that are fair and reasonable.

Research

Social research in the ICC is conducted primarily in-house by the Bureau of Economics and the Office of Railroad Planning. The Bureau of Economics is responsible for providing the ICC with economic information and analyses. Research is conducted by various groups in the bureau.

RAIL AND WATER CARRIER ANALYSES This group provides the ICC with economic analysis pertaining to the rail and water carrier modes of transportation.

MOTOR CARRIER AND PIPELINE ANALYSES This group provides the ICC with economic analysis on transportation and regulatory problems pertaining to motor carrier and pipeline modes of transportation.

FINANCIAL AND PRICING ANALYSES This group conducts economic analysis and research pertaining to carrier pricing. Specific areas of research include cost, demand, carrier and shipping industry structure, and the effect of changes in rate structure.

ECONOMIC PROJECTIONS AND FORECASTING This group provides the ICC with analysis based on the design and development of econometric models and other quantitative methods. Research includes econometric studies, forecasts, and projections of the economy in general and the transportation industry in particular.

The Office of Railroad Planning was created to conduct analyses and planning concerning rail services throughout the United States. Research activities include:

○ analyses of proposed mergers, acquisition, and other significant changes in the national rail system;
○ evaluation of the economic viability of lightly traveled rail lines; and
○ research concerning policies that are likely to result in a more competitive, energy-efficient, and coordinated transportation system.

For Further Information

Write Interstate Commerce Commission, Twelfth Street and Constitution Avenue, N.W., Washington, D.C. 20423.

NUCLEAR REGULATORY COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1976	1,026				1,026					1,026
1977	1,455				1,455					1,455

The Nuclear Regulatory Commission (NRC), created in 1975, has the responsibility to license and regulate the use of nuclear energy to protect the public. Its purpose is to ensure that civilian uses of nuclear materials and facilities are conducted in a manner consistent with public health and safety, environmental quality, national security, and antitrust laws. The major share of the commission's effort is focused on the use of nuclear energy to generate electric power. The commission supports research deemed necessary for performing licensing and related regulatory functions.

Research

NRC social research is conducted by the health and environmental branch and the safeguards branch. The health and environmental branch funds research concerning "socioeconomic and regional systems analyses," which provide an information base for the NRC to take actions to ensure the health and welfare of people and the environment. Specific topics of social research are listed below.

IMPACTS ON SOCIETY AND COST-BENEFIT ANALYSES This research focuses on the social effects of nuclear power plant siting. Projects have been funded on:

- the secondary socioeconomic effects of plant siting;
- a comparative assessment of socioeconomic effects of nonconventional energy resources;
- the quantification of community change associated with nuclear power development; and
- the socioeconomic effect of regional perceptions of nuclear risk.

REGIONAL ASSESSMENT AND SITE EVALUATION METHODOLOGIES This research focuses on the assessment of the effect of nuclear power sites on the environment and demography. Projects have been funded on:

- an assessment of existing methods and procedures for regional siting and impact assessment;
- a projection of population characteristics and power requirements on a regional basis; and
- the development of a model for projecting probabilistic population distribution.

The safeguards branch is concerned with the development of improved safeguards to ensure adequate nuclear materials and plant protection. Behavioral research studies have been funded to analyze potential human threats to nuclear power plants. Research has also focused on societal risk analyses concerning safeguard design.

For Further Information

Write Nuclear Regulatory Commission, 1717 H Street, N.W., Washington, D.C. 20555.

SECURITIES AND EXCHANGE COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	346				346					346
1976	382				382					382
1977	426				426					426

The Securities and Exchange Commission (SEC) regulates the issuance of securities and the securities market. It aims to provide the fullest possible disclosure to the investing public and protect the interest of the public and investors against malpractice in the securities and financial markets.

Research

The research activities of the SEC are conducted by the Directorate of Planning and Economic Research, which has two offices. The Office of Policy Planning consists of a small staff with legal, economic, and financial backgrounds who have the responsibility for the overall coordination and development of SEC planning and policies. The Office of

Economic Research is responsible for the compilation of statistical data and the conduct of research required to meet the overall needs of the commission. Five branches conduct research in the Office of Economic Research.

BRANCH OF SECURITIES OFFERING AND STUDIES This branch is responsible for conducting studies and preparing research reports related to the issuance of new corporate securities.

BRANCH OF CAPITAL MARKET STUDIES This branch is responsible for conducting studies and preparing research reports related to corporate financial developments and their implication for disclosure practices by SEC registrants. Long-range studies are also conducted on capital market problems.

BRANCH OF MARKET TRADING ACTIVITY This branch is responsible for conducting studies and preparing reports related to stock exchanges and other secondary markets in stocks.

BRANCH OF SECURITIES INDUSTRY AND SELF-REGULATORY ECONOMICS This branch is responsible for conducting studies related to the broker-dealer industry, self-regulatory organizations, investment companies, investment advisers, and other financial institutions.

BRANCH OF INSTITUTIONAL HOLDINGS AND TRADING This branch is responsible for (1) preparing economic reports and statistical releases on the financial aspects of pension funds, stock trading, and holdings of financial institutions and (2) conducting surveys of mortgage lending activity or real estate investment trusts and mortgage companies.

For Further Information

Write Securities and Exchange Commission, 500 North Capitol Street, Washington, D.C. 20549.

U.S. INTERNATIONAL TRADE COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,708				1,708			754	754	2,462
1976	2,570				2,570			1,175	1,175	3,745
1977	3,229				3,229			1,323	1,323	4,552

The U.S. International Trade Commission furnishes studies, reports, and recommendations involving international trade and tariffs to the President, the Congress, and government agencies. The commission investigates and analyzes all aspects of international trade, focusing on the effect of imports on U.S. industries, firms, and workers. The commission also analyzes the conditions, causes, and effects of competition between domestic and foreign industry.

Research

The research activities of the commission are conducted intramurally by the Office of Economics. The office conducts research across a broad spectrum of fields in international trade. The focus of much of the research is on factors affecting U.S. foreign trade and international trade in general, including governmental and economic factors affecting such trade. The office also studies the economic viability and comparative strengths and weaknesses of all major segments of the U.S. industry to point out vulnerability to imports and identify export potential. This research attempts to provide early warning signals and advice to the Congress and the President on international trade matters.

Examples of commission research include a series of studies concerning the competitiveness of U.S. industries. These studies analyzed U.S. industries, foreign trade elasticities in 20 industries, and protection policy in major trading countries. Another series of studies analyzed the history of U.S.-Canadian automotive agreements and their effects on U.S.–Canadian trade, employment, production, balance of payments, capital flows, and investment patterns.

Another major activity of the commission is the analysis of basic data on industrial performance in import, export, and domestic markets, unemployment trends, the effect of technological change, and trends in foreign trade. Information is collected and analyzed on individual industries and the commodities produced by those industries.

Dissemination

The responsibilities of the commission to provide information and technical assistance to the President, the Congress, other federal agencies, industries, groups, and individuals indicate its major disseminating role. The commission has a unique position as a repository of technical information and professional skills in the fields of tariffs, imports, and their effect on domestic industries. Commission staff provide technical assistance to other federal agencies concerning trade agreement programs.

For Further Information

Write U.S. International Trade Commission, 701 E Street, N.W., Washington, D.C. 20436.

20 Independent Agencies

The Study Project surveyed 21 independent agencies—that is, agencies that are not part of any cabinet-level department—that support social knowledge production and application activities. These agencies vary widely in the amount of their support: in 1977, the National Science Foundation, one of the federal government's leading supporters of scientific research, obligated almost $100 million for social knowledge production and application; the Federal Mediation and Conciliation Service, which funds a small amount of in-house research on labor and management issues, obligated $0.1 million. Table 20-1 presents the 21 agencies and their estimated fiscal 1977 obligations.

ACTION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	167		95		262					262
1976	395		858		1,253					1,253
1977	295		650		945					945

ACTION is the federal agency for volunteer service. Its purpose is to strengthen the effect and appeal of citizen participation on programs providing personalized services to people in need, both at home and abroad. ACTION brings together the following volunteer programs: the Peace Corps, Volunteers in Service to America (VISTA), Foster Grandparents, Retired Senior Volunteer Program (RSVP), and the University Year for ACTION.

Research

The goal of the social research funded by ACTION is to provide the agency with information that it can use in planning future agency activities. A secondary goal is to provide more information on the general topic of volunteerism. Research projects funded by ACTION include:

- ○ a study of possible new models for the Peace Corps, with emphasis on having Peace Corps volunteers work in partnership with the national service volunteers from the host country;
- ○ a study of the structure of volunteerism in the United States, with emphasis on its social, economic, and political dimensions;
- ○ a study of the New York City Urban Corps, with emphasis on identifying elements that tend to foster career development of the volunteers; and
- ○ an assessment of the effect of volunteer service on both the volunteers themselves (career development, personal satisfaction, and attitude and educational changes) and the organizations in which the volunteers served.

Program Evaluation

A major effort is now being made to measure whether ACTION programs are accomplishing their respective goals. In addition to these

TABLE 20-1 Independent Agencies that Support Social Knowledge Production and Application: Profile (fiscal 1977, $millions)

Agency	Total Social Knowledge Production and Application Obligations	Organizational Location of Social Knowledge Production and Application Activity[a]	Primary Goal or Audience[a]	Predominant Policy Area
National Science Foundation	99.9	R&D agency	Advancement of knowledge	Science and technology base[b]
National Foundation on the Arts and Humanities	16.4	R&D agency	Knowledge for third parties	Education
Environmental Protection Agency	12.8	Operating agency	Knowledge for third parties	Natural resources and environment
Smithsonian Institution	12.4	R&D agency	Advancement of knowledge	Education/science and technology base
Appalachian Regional Commission	11.5	Operating agency	Knowledge for third parties	Diverse[c]
Federal Reserve System	10.1	Policy-making office	Improvement of federal policies	Economic growth
Commission on Civil Rights	8.2	Policy-making office	Improvement of federal policies	Housing and community development
Veterans Administration	5.8	Operating agency	Improvement of federal programs	Health
Executive Office of the President	5.3	Policy-making office	Improvement of federal policies	Diverse[d]
Tennessee Valley Authority	4.8	Operating agency	Knowledge for third parties	Housing and community development

U.S. Civil Service Commission	4.5	Operating agency	Improvement of federal programs	Employment and training
Equal Employment Opportunity Commission	4.5	Operating agency	Improvement of federal programs	Employment and training
Community Services Administration	2.0	Operating agency	Knowledge for third parties	Education/economic growth
Advisory Commission on Intergovernmental Relations	1.4	Policy-making office	Improvement of federal policies	Housing and community development
ACTION	0.9	Operating agency	Improvement of federal programs	Income security and social services
Small Business Administration	0.8	Operating agency	Improvement of federal programs	Economic growth
National Center for Productivity and Quality of Work Life	0.5	Operating agency	Knowledge for third parties	Economic growth
U.S. Information Agency	0.5	Operating agency	Improvement of federal programs	International affairs
U.S. Arms Control and Disarmament Agency	0.4	Operating agency	Improvement of federal policies	International affairs
General Services Administration	0.3	Operating agency	Improvement of federal programs	Housing and community development
Federal Mediation and Conciliation Service	0.2	Operating agency	Improvement of federal programs	Employment and training
TOTAL	203.3			

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[a] See Chapter 2 for a more detailed discussion.

[b] RANN (now the Directorate for Applied Science and Research Applications), however, funds activities in a variety of policy areas.

[c] The Appalachian Regional Commission funds activities in the areas of human resources and community resources.

[d] See Table 20-2 for a more detailed presentation.

studies, ACTION will evaluate the various mechanisms used to deliver volunteer resources to identify procedures that can be improved. A major evaluation of domestic operations was conducted on a random sample of projects. The evaluation will produce regional profiles and project-specific profiles. Other program evaluations include:

- the effect of the Older American Programs on the volunteer as well as on the client or agency served;
- the effectiveness of the career development components of ACTION programs for low-income volunteers; and
- the effectiveness of ACTION technical assistance activities in support of private volunteerism.

For Further Information

Write ACTION, 806 Connecticut Avenue, N.W., Washington, D.C. 20525.

ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	987			110	1,097			141	141	1,238
1976	971			108	1,079			182	182	1,261
1977	1,112			124	1,236			166	166	1,402

The Advisory Commission on Intergovernmental Relations (ACIR) is an independent, bipartisan body that attempts to identify and analyze the causes of intergovernmental conflicts. The commission is made up of 26 members from all levels of government.

Research

The commission's research agenda is determined by the members' own wide-ranging experiences, their observations and contacts, and staff recommendations. Once a topic is selected, staff gather information by a variety of methods, including library research, commission hearings, staff surveys, and field studies.

The commission undertakes both continuing projects and one-time studies. Continuing projects include monitoring of general revenue sharing, the Safe Streets Act, and the legislative activities of state and local governments and a survey of public attitudes on government and taxes.

Projects that have been performed on a one-time basis include studies of intergovernmental aid (categorical and block grants), criminal justice, national growth policy, taxation of military personnel, the municipal bond market, housing and redevelopment, transportation, local government modernization, and city financial emergencies.

General Purpose Statistics

The commission periodically publishes a fiscal "encyclopedia" entitled *State and Local Finances: Significant Features of Fiscal Federalism*. The report is a compilation of statistical tabulations from ACIR studies and other sources that serves as a handbook on state-local fiscal systems.

Dissemination

The primary dissemination activity of the commission is the publication and dissemination of the results of commission research. In addition, the commission provides assistance and information services to state and local governments.

For Further Information

See *Annual Report, ACIR: The Year in Review*, a publication of ACIR, or write Advisory Commission on Intergovernmental Relations, 726 Jackson Place, N.W., Washington, D.C. 20575.

APPALACHIAN REGIONAL COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,405	2,641	724		4,770	4,384			4,384	9,154
1976	1,155	3,540	500		5,195	7,614			7,614	12,809
1977	1,155	3,830	500		5,485	6,040			6,040	11,525

The Appalachian Regional Commission was established in 1965 to assist that region in meeting its special problems, promoting economic development, and providing a framework for joint federal and state efforts to provide the basic facilities essential to the region's growth. The comprehensive goals of the commission are to provide the people of Appalachia with the health and skills they need to compete for opportunities and to develop a self-sustaining economy and environment capable of supporting a population with rising incomes and standards of living and increasing employment opportunities. To accomplish that task, the commission has concentrated on the greatest problems of development: community development and housing, education, environment, health and child development, industrial development and management, tourism, and transportation.

Research

Research funded by the Appalachian Regional Commission has a variety of objectives: to advance the understanding of conditions in Appalachia, to identify opportunities for stimulating growth and development, to facilitate the regional planning process, to assist in program design and implementation efforts, and to contribute to the overall goals of the Appalachian Regional Development Program. Research undertaken directly by the commission has concentrated on the study of specific problems or conditions that have regionwide significance. Examples of studies funded by the commission include:

- ○ a study of the status of Appalachian migrants, current migration patterns, and implications;
- ○ the impact of critical energy shortages on the region's development;

- a study of the second-home industry (recreational property) in Appalachian Tennessee;
- an analysis of banking in Appalachia; and
- a study of intergovernmental coordination in multistate programs.

Policy Formulation Demonstrations

A major activity of the commission is funding area development activities via demonstration projects. An analysis of the demonstration program showed that the projects fall into three categories: policy formulation demonstrations, policy implementation demonstrations, and limited service program demonstrations. The last category is by far the largest—the provision of services to residents of Appalachia to improve their individual and community well-being. These programs were excluded from the survey. The commission does, however, support a limited number of demonstrations to test and evaluate alternative solutions or innovative programs in Appalachia. Demonstrations are supported in five major areas: health and child development; education; transportation; community facilities and housing; and energy, environment, and natural resources. Examples of of policy formulation demonstrations include:

- a program to test the effectiveness of using social and token reinforcement by teachers to reward pupil success, with the aim of reducing the number of dropouts;
- a program to test innovative methods for recruiting and placing rural unemployed and underemployed persons in job training programs; and
- a pilot program to provide counseling assistance to Vietnam-era veterans in Appalachian Mississippi.

Program Evaluation

Evaluation funds are aimed at improving the monitoring and program design capability of the commission. During fiscal 1975, the commission focused its evaluation and monitoring activities on its human resource programs. The vocational educational facilities construction program and the Regional Education Service Agency (RESA) program were evaluated. In addition, a system is being developed, with state cooperation, to evaluate the commission's health and child development program.

Policy Implementation Demonstrations

In addition to policy formulation demonstrations, policy implementation demonstrations are supported to promote and disseminate effective programs throughout the Appalachian region. These demonstrations are funded in three major programs.

VOCATIONAL EDUCATION AND TRAINING The general purpose of these demonstrations is to show ways in which education and training can become more relevant in assisting Appalachians in choosing occupations and employment. Such demonstrations include:

○ improved ways to fully utilize vocational and technical education facilities;
○ home-based multimedia individual study programs or self-paced programs; and
○ innovative approaches to guidance counseling and placement services.

HEALTH AND CHILD DEVELOPMENT These demonstrations are aimed at showing new methods to reduce the costs of health and child care through efficient use of all health personnel, new systems of communication, and improved transportation. These programs seek to demonstrate the cost-effectiveness of enhanced preventive measures and innovative approaches to health manpower training. The major goal is thus to demonstrate in selected areas that modern, comprehensive health care can be made available and accessible in rural areas and that other similar areas can adopt these same programs.

COMMUNITY DEVELOPMENT This program consists of demonstrations, other than health and education programs, that are deemed essential to assisting community and economic development in the Appalachian states and subregions. Examples of such demonstrations include technical assistance programs to accelerate industrial and enterprise development.

For Further Information

See *Appalachian Regional Commission Research Catalogue*, a publication of the commission, or write Appalachian Regional Commission, 1666 Connecticut Avenue, N.W., Washington, D.C. 20235.

COMMISSION ON CIVIL RIGHTS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	4,525				4,525			1,196	1,196	5,721
1976	5.063				5,063			1,597	1,597	6,660
1977	6.249				6.249			1,911	1,911	8,160

The Commission on Civil Rights was created in 1957 as an independent, bipartisan, fact-finding agency. It has no enforcement powers; its role is to collect and analyze information and encourage constructive steps toward equal opportunity, particularly for minority groups and women. The commission investigates complaints, holds public hearings, and collects and studies information on denials of equal protection of law because of race, color, religion, sex, or national origin. Voting rights, the administration of justice, and equality of opportunity in education, employment, and housing are among the many topics that have been examined by the commission.

Research

The commission's research activities fall into two major categories. The first category can best be described as "reports and studies." These studies are the result of federal and state fact-finding investigations, field hearings, and legal analyses. The second category, conducted by the Office of Research, relies on the use of social science methods and theories.

The goal of the first category of research is to obtain information, establish facts, and present them to the public in an effort to increase the awareness of problems and to develop information that can help solve them. Commission studies frequently recommend corrective actions, such as remedial legislation. Examples of such reports and studies are:

- *Twenty Years After Brown*, a series of reports
- *Voting Rights Act: Ten Years Later*
- *A Better Chance to Learn: Bilingual-Bicultural Education*
- *Labor Unions and Equal Employment Opportunity*

○ *Desegregating the Boston Public Schools: A Crisis in Civil Responsibility*

A standing area of inquiry for the commission is the civil rights enforcement efforts of federal agencies. Since 1973, in-depth reviews of agency civil rights enforcement activities have been conducted annually.

The goal of the second category of research, basic and applied social science research, is to discover the underlying causes of the dynamics of discrimination so that effective corrective measures can be developed and disseminated. This research also attempts to document the personal, social, economic, and political consequences of discrimination and subtler forms of bias. The following studies are either under way or planned:

○ a large-scale basic inquiry into American attitudes on race and sex roles and the situational factors that determine whether, when, and how these attitudes shape behavior toward minority groups and females; and

○ a nationwide survey to assess the extent and causes of progress in desegregation.

Reviews of the literature have also been supported by the Office of Research on:

○ whether alleged IQ differences among racial and ethnic groups exist;

○ whether schools have the potential to educate minority pupils effectively; and

○ whether sex- and race-biased school books have adverse effects on students.

Dissemination

The commission conducts a variety of dissemination activities. Prior to 1964, the major audience of commission studies was the executive and legislative branches of the federal government. The Civil Rights Act of 1964 expanded the commission's responsibility to include providing information to national and community organizations and institutions, government agencies, and the public. The dissemination activities described below are supported by the commission.

PUBLICATIONS The commission has a large publications program. The agency publishes *Civil Rights Digest*, a quarterly forum for discussing civil rights issues.

MONOGRAPHS The commission prepares monographs, statements, and short reports on civil rights subjects that have become matters of public debate. All pertinent views are gathered, analyzed, and subjected to facts revealed by studies and conferences.

CONFERENCES The agency sponsors conferences to discuss and promote commission projects. For example, a conference was held to discuss the publication *Twenty Years After Brown*. A group of scholars, educators, and community leaders was invited to comment on the report.

SEMINARS AND COLLOQUIA A series of colloquia have been held at which researchers from other government agencies and universities presented work of interest to commission staff. A seminar was also held to develop a research approach to the study of affirmative action.

For Further Information

See *Catalog of Publications*, a publication of the Commission on Civil Rights, or write Commission on Civil Rights, 1121 Vermont Avenue, N.W., Washington, D.C. 20425.

COMMUNITY SERVICES ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,437	700			2,137	6,155			6,155	8,292
1976	1,900	725			2,625	5,300			5,300	7,925
1977	1,000	1,000			2,000					2,000

The major goal of the Community Services Administration (CSA) is to reduce poverty in America. CSA was created in 1974 as the successor agency to the Office of Economic Opportunity (OEO). The goal of CSA is to reduce poverty by helping low-income families and individuals attain economic self-sufficiency. The basic technique of its antipoverty program is the combined use of federal, state, and local funds in the organization and operation of community action and other programs that are directed and overseen by locally operated boards.

Research

The research activities of CSA focus on the issue of community economic development. Research is supported to develop plans, proposals, program designs, and methods to implement more effective ways for CSA to assist in community economic development activities. Research has been conducted on: economic development strategies; organizational structures and internal management of community economic development organizations; and the financial management of community economic development organizations.

Policy Formulation Demonstrations

CSA supports a limited number of policy formulation demonstrations on community economic development. Along with its research program, the demonstration program seeks more effective methods of community economic development. The demonstration program tests varying models of community economic development programs.

Policy Implementation Demonstrations

In 1974, statutory responsibility for the research and demonstration activities of the OEO was transferred to the Department of Health, Education, and Welfare, the Department of Labor, and the Department of Housing and Urban Development. CSA was, however, given responsibility for the completion of demonstration projects that were started by OEO. These policy implementation demonstrations were completed in fiscal 1975 and fiscal 1976; their goal was to support pilot projects designed to develop and promote new approaches to the problems of poverty. No new funds for demonstrations were requested by CSA in fiscal 1977. Examples of some of the policy implementation demonstrations funded in fiscal 1975 and fiscal 1976 include:

- a series of rural housing projects in which housing rehabilitation techniques were demonstrated and poor families were assisted in finding low-cost housing;
- an outreach program to assist Vietnam-era veterans find jobs;
- a basic skills instructional program for low-income children, which attempted to improve the reading and mathematical skills of children below the national norm;
- a program to work with young offenders during their reentry into the community; and
- a residential home program for neglected, abandoned, or other youths separated from their families because of status offenses.

For Further Information

Write Community Services Administration, 1200 Nineteenth Street, N.W., Washington, D.C. 20506.

ENVIRONMENTAL PROTECTION AGENCY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	12.100		700		12,800					12,800
1976	12.100		700		12,800					12,800
1977	12.100		700		12,800					12,800

The purpose of the Environmental Protection Agency (EPA) is to protect and enhance the environment to the fullest extent possible. The agency's mission is to control and abate pollution involving air, water, solid waste, pesticides, and radiation. EPA's mandate is to mount an integrated, coordinated attack on environmental pollution in cooperation with state and local governments. EPA attempts to abate and control pollution by a variety of research, monitoring, standard-setting, and enforcement activities. EPA also reinforces the efforts made by other federal agencies with respect to their effect on the environment.

Research

There is no distinct organizational element in EPA concerned exclusively with socioeconomic research; it does, however, support socioeconomic research that uses interdisciplinary techniques and skills to define and attempt to solve both short- and long-term environmental problems. This research is conducted throughout the Office of Research and Development (ORD) making exact figures hard to obtain. The figures above represent EPA's estimate of the social research activities of ORD and the Office of Planning and Evaluation. EPA estimated that no growth took place in the agency's socioeconomic research between fiscal 1975 and fiscal 1977.

EPA's socioeconomic research falls into the areas described below.

ENVIRONMENTAL MANAGEMENT The goal of this research area is to provide regional environmental planners and managers with methods and techniques to determine feasible alternative solutions, at a reasonable cost, to specific environmental problems. Research has focused on the development of improved multimedia planning techniques and improved methods for selecting and analyzing environmental quality and economic information, the evaluation of alternative institutional arrangements, and the development of comprehensive systems analysis and evaluation methods. Institutional analysis is designed to analyze existing and necessary institutional arrangements for improving environmental management programs. Specific research studies have been conducted on environmental quality and public involvement to determine the factors that govern the nature and magnitude of public involvement in decisions on environmental management in various geographic and institutional contexts. Research is planned on ways to increase public involvement in stimulating constructive changes in existing institutions and in implementing environmental changes in communities.

ECONOMIC STUDIES This area develops and uses cost-benefit methodology to determine gains in environmental programs. These studies analyze the economic aspects of environmental actions, including cost-benefit studies, costs/risk-benefit studies, and trade-off analysis. Examples of such studies include:

○ an economic analysis of the benefits of pollution abatement;
○ an economic analysis of noise control;
○ a study of the economic consequences of specific situations associated with pollution abatement; and
○ an analysis of economic means of controlling pollution.

METHODS AND MODEL DEVELOPMENT EPA also supports the development of methods and models that can be used in environmental analysis. EPA supports the development of forecasting methodology to enable the agency and other decision makers to anticipate the long-range effect of human and institutional activities on the environment. Methodological tools have also been supported to assess environmental problems, to measure the effectiveness of environmental controls, and to predict the consequences of alternative pollution control strategies.

SOCIOECONOMIC ASSESSMENTS Comprehensive environmental and socioeconomic assessments are supported to enable decision makers to compare the risk, benefits, and costs of proposed actions and assist them in making decisions as to what pollution levels are tolerable in the environment. In addition, the environmental, economic, and social consequences of energy alternatives have also been analyzed to assist in the development of EPA policies.

OTHER AREAS A limited amount of social research is funded in the following areas: economic epidemiology, water quality implementation research, future pollutant problems and pollutant assessment, waste reduction, conservation issues, environmental standards, and regulations research.

Program Evaluation

The program evaluation activities are conducted by the Office of Planning and Evaluation. Studies are funded to assess the effectiveness of EPA programs. A major evaluation was supported to assess the effectiveness of the EPA construction grant program. That study examined such factors as the initial planning of sewage treatment plant construction projects and operations and maintenance practices.

For Further Information

See *A Review of the U.S. Environmental Protection Agency Environmental Research Outlook, FY 1976 through 1980*, Chapter VI, U.S. Congress, Office of Technology Assessment, U.S. Government Printing Office, Washington, D.C., 1976; the following publications of EPA's Office of Research and Development: *Report to the Congress: Environmental Research Outlook 1976–1980; Report to the Congress: Environmental Research Outlook 1977–1981; Office of Research and Development Program Guide, FY 77;* and *ORD Publications Summary;* or write Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	301		360	570	1,231			1,273	1,273	2,504
1976	330	193	360	1,160	2,043			1,441	1,441	3,484
1977	555	793	360	1,237	2,945			1,505	1,505	4,450

The Equal Employment Opportunity Commission (EEOC) was created by the Civil Rights Act of 1964. Its major purpose is the ending of discrimination based on race, color, religion, sex, or national origin. The commission is involved in ending discrimination on all aspects of employment, including hiring, promotion, firing, wages, testing, training, apprenticeship, and other conditions of employment. In addition to receiving discrimination complaints, the commission promotes voluntary action programs by employers, unions, and other community organizations.

Research

The research program of the commission focuses on analyzing the characteristics and profiles of participants in equal employment opportunity cases. An example of such a project is a study of Asian-American employment in the San Francisco Bay area. Another project examined the attitudes and perceptions of participants in EEOC cases. The commission designs, administers, and processes research surveys relating to minority employment and analyzes the economic, social, and psychological determinants involved in starting equal employment opportunity actions.

Policy Formulation Demonstrations

The commission increased its support of policy formulation demonstrations in fiscal 1977. Forty state and local agencies received funding to test the effectiveness of innovative equal employment programs. The outcomes of these projects will be used by the agency in determining future policy directions and programs. In addition, a prototype demonstration model was implemented in two regions to test new complaint resolution procedures.

Program Evaluation

The commission is interested in analyzing the effectiveness of its programs. Evaluations have been made of the EEOC training center, state and local program operations, voluntary programs, and compliance and litigation programs.

General Purpose Statistics

EEOC is the primary source in the U.S. government for detailed statistics on equal employment opportunity by private employers, labor unions, state and local governments, elementary and secondary education institutions, and colleges and universities. Reports are prepared on each sector's employment patterns regarding employment by race, sex, and national origin. In addition, the commission gathers, analyzes, and interprets economic data with special emphasis on how they pertain to employment.

Dissemination

The commission has a major program of dissemination for its publications about equal employment opportunity. In addition, an entire division of EEOC is devoted to providing educational seminars, technical assistance, and publications. The major dissemination activities are technical assistance and the distribution of publications.

For Further Information

Write Equal Employment Opportunity Commission, 2401 E Street, N.W., Washington, D.C. 20506.

EXECUTIVE OFFICE OF THE PRESIDENT

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	4,335		300		4,635			505	505	5,140
1976	4,052		300		4,352			1,198	1,198	5,550
1977	3,506		300		3,806			1,463	1,463	5,269

A limited amount of social research is funded in the Executive Office of the President. Of the 13 components of the office presented in Figure 20-1, four were found to support or conduct social knowledge production or application activities. (The Office of Science and Technology Policy was not in existence when the Study Project survey was conducted and thus not included.)

The activities of the Office of Management and Budget, the Domestic Council, the National Security Council, and the Council on International Economic Policy were judged not to support or conduct "research." Instead, the activities of those offices were deemed closer to in-house policy analysis or staff work, which did not meet the definition of research established by the Study Project.

Table 20-2 lists the four agencies that support social knowledge production and application activities in the Executive Office of the President and their estimated fiscal 1977 obligations.

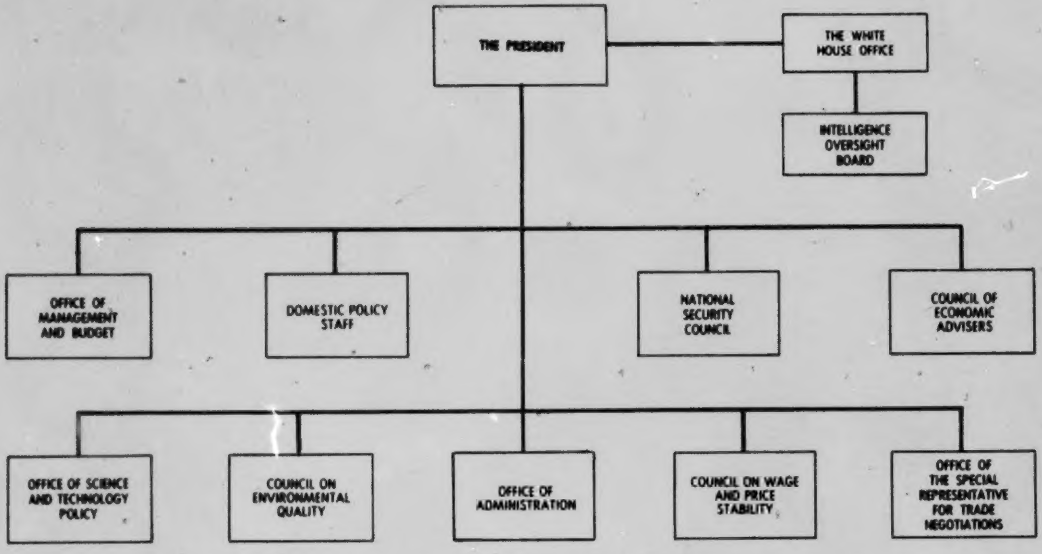
THE PRESIDENT
THE WHITE HOUSE OFFICE
INTELLIGENCE OVERSIGHT BOARD
OFFICE OF MANAGEMENT AND BUDGET
DOMESTIC POLICY STAFF
NATIONAL SECURITY COUNCIL
COUNCIL OF ECONOMIC ADVISERS
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
COUNCIL ON ENVIRONMENTAL QUALITY
OFFICE OF ADMINISTRATION
COUNCIL ON WAGE AND PRICE STABILITY
OFFICE OF THE SPECIAL REPRESENTATIVE FOR TRADE NEGOTIATIONS

FIGURE 20-1 Executive Office of the President organizational chart.

TABLE 20-2 Executive Office of the President Social Knowledge Production and Application Activities (fiscal 1977, $millions)

Agency Component	Estimated Social Knowledge Production and and Application Obligations	Predominant Policy Area
Office of Telecommunications Policy	1.9	Transportation[a]
Council of Economic Advisers	1.4	Economic growth
Council on Environmental Quality	1.2	Energy development and conservation/ natural resources and environment
Council on Wage and Price Stability	0.8	Economic growth
TOTAL	5.3	

[a] Communications research is included in the transportation policy area.

COUNCIL OF ECONOMIC ADVISERS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1.223				1.223					1.223
1976	1,345				1,345					1,345
1977	1.426				1.426					1.426

The Council of Economic Advisers performs a variety of functions, which include:

- analyzing the national economy and its various segments;
- advising the President on economic developments;
- recommending policies for economic growth and stability;
- appraising economic programs and policies of the federal government;
- assisting in the preparation of the annual *Economic Report to the President*.

The council consists of 3 members appointed by the President, a staff of approximately 12 senior economists, and 7 research assistants.

Research

The council's research activities are conducted almost solely in-house. While outside economists are frequently consulted, little money is spent on extramural research, and little primary research is conducted. The council staff primarily perform secondary analysis. The council depends heavily on existing knowledge and data bases developed outside the council. Staff research activities consist of analyzing and applying the results of outside research, including econometric models.

During 1976, the council staff performed research and analyses on foreign economic conditions and international financial developments; proposals regarding agriculture and food, agricultural exports, and commodity trade; measures and programs to support housing construction and stimulate investment; proposals for dealing with a wide range of energy issues and problems; and proposals for improving the effectiveness of unemployment compensation, health insurance, social security, and income maintenance.

For Further Information

See *Economic Report of the President*, Appendix A, or write Council of Economic Advisers, Old Executive Office Building, Washington, D.C. 20506.

COUNCIL ON ENVIRONMENTAL QUALITY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975								400	400	400
1976								1,100	1,100	1,100
1977								1,200	1,200	1,200

The Council on Environmental Quality was established by the National Environmental Policy Act of 1969 to formulate and recommend national policies to promote the improvement and quality of the environment. The council performs a variety of functions, such as:

○ developing and recommending to the President national policies that promote environmental quality;

○ conducting a continuing analysis of changes or trends in the national environment;

○ administering the process of national environmental impact statements; and

○ conducting a continuing analysis of non-nuclear energy research and development activities with regard to the adequacy of the programs in meeting energy conservation requirements.

Dissemination

The council does not conduct or support any research; instead, it supports a variety of dissemination activities aimed at synthesizing and distributing existing knowledge concerning the environment. The council has supported several conferences at which research findings are synthesized and discussed. In addition, publications are prepared and disseminated that present "state of the knowledge" summaries in a variety of areas. (These activities are considered to be dissemination activities and not research activities.) Examples of such reports are:

○ *The Growth Shapers, The Land Use of Infrastructure Investments*, a synthesis of research findings on the land use effects of water and wastewater systems, power supplies, highway and secondary road networks, mass transit, etc.

○ *The Costs of Sprawl*, a synthesis of knowledge on patterns of land development and its effect on the resulting environmental, economic, natural resource, and social costs.

○ *Recreation on Water Supply Reservoirs*, a handbook designed for use by citizens and public officials interested in using water reservoirs to provide both safe drinking water and greatly expanded outdoor recreation facilities.

For Further Information

See *The Annual Report of the Council on Environmental Quality*, a council publication, or write Council on Environmental Quality, 722 Jackson Place, N.W., Washington, D.C. 20006.

COUNCIL ON WAGE AND PRICE STABILITY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	345				345					345
1976	730				730					730
1977	750				750					750

The Council on Wage and Price Stability was created in 1974 to monitor the economy as a whole with respect to such key indicators as wages, costs, productivity, profits, and prices. The council also has the responsibility to review and appraise the various programs, policies, and activities of federal government agencies for the purpose of determining the extent to which those programs and activities contribute to inflation.

Research

The council conducts research on various aspects of the inflation problem. While the great majority of its research is conducted in-house, several small, extramural projects have been funded on the causes of inflation. Another extramural research project analyzed the Wholesale Price Index and developed alternatives to the current system.

Like their counterparts in the Council of Economic Advisers, the staff of the Council on Wage and Price Stability rely heavily on existing data resources and the results of outside research. The council staff primarily perform secondary analyses on the problem of inflation in various sectors of the economy. The council has conducted research and analyses on the causes of inflation in the paper, chemical, agricultural machinery, automotive, steel, and health care industries.

For Further Information

Write Council on Wage and Price Stability, 726 Jackson Place, N.W., Washington, D.C. 20506.

OFFICE OF TELECOMMUNICATIONS POLICY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	2,767		300		3,067			105	105	3,172
1976	1,977		300		2.277			98	98	2,375
1977	1,330		300		1,630			263	263	1,893

The Office of Telecommunications Policy (OTP) was created in 1970. In July 1977, the functions of OTP were transferred to the Department of Commerce. While in the Executive Office of the President, OTP advised the President on telecommunications matters, helped formulate national telecommunications policies, and presented executive branch views on telecommunications matters to the Congress and the Federal Communications Commission.

Research

OTP's social research program was designed primarily to augment the policy-making role of the office through the exploration of policy options, the effect of those options, and the study of major issues of national telecommunications concerns. Through extramural and a limited amount of in-house research, studies were supported to enhance the ability of OTP to choose policy positions based on a sound knowledge of all relevant issues and an understanding of the ramifications of potential policy choices. Research studies were funded in the areas described below.

ECONOMICS OF THE COMMON CARRIER INDUSTRY Studies were funded on the cost economics of the industry, installation charges, separation procedures, cost allocation and rate structures, and mobile communications.

CABLE TELEVISION AND BROAD BAND COMMUNICATIONS Specific studies focused on rural extension of television services, subscription cable services, urban cable construction costs, and assessment of the demand for pay television.

PLANNING THE USE OF GOVERNMENT COMMUNICATIONS Several studies were funded on the responsibilities and functions of the executive branch of government concerning telecommunications policy. A study of executive authorities in telecommunications was supported.

PROCUREMENT POLICY FOR GOVERNMENT COMMUNICATIONS A comprehensive analysis of the procurement practices of the federal government as they relate to communication services and facilities was commissioned.

COMPUTER COMMUNICATIONS AND PRIVACY ISSUES A series of studies was funded in the area of privacy and telecommunications.

GOVERNMENT APPLICATIONS OF NEW TECHNOLOGY Several studies analyzed the role of current policies and strategies by government, industry, and users in printing new technology to meet public needs.

INTERNATIONAL COMMUNICATIONS A number of studies were funded that examined a variety of issues related to international facilities, organizations, and telecommunications.

Program Evaluation

OTP allocated a portion of its resources to the evaluation of several federal telecommunications programs.

Dissemination

The office supported a limited number of dissemination activities. Several small conferences were supported during the last several years. In addition, OTP examined the feasibility of developing an information retrieval system for telecommunications.

For Further Information

See *Activities and Programs 1975–1976, Office of Telecommunications Policy*, Appendix, a publication of the OTP, or write Office of Telecommunications, Department of Commerce, 1325 G Street, N.W., Washington, D.C. 20005.

FEDERAL MEDIATION AND CONCILIATION SERVICE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	59				59			46	46	105
1976	110				110			69	69	179
1977	112				112			70	70	182

The Federal Mediation and Conciliation Service assists labor and management in the mediation and prevention of disputes that affect industries engaged in interstate commerce and defense production (other than rail and air transportation), whenever such disputes might threaten to cause a substantial interruption in commerce. Its mandate is to encourage the voluntary settlement of labor disputes through making available government mediators and facilities for mediation and voluntary arbitration.

Research

The small amount of research conducted by the service is performed by the Office of Technical Services. Background research is done on major labor disputes and national issues. An energy study was performed to inform the service about energy-related issues being raised at the bargaining table, layoffs, work schedule changes, and other reactions to fuel shortages. Research has also analyzed new arbitration practices.

Dissemination

A clearinghouse is supported to provide federal mediators with new information, approaches, and techniques developed in industrial relations.

For Further Information

Write Federal Mediation and Conciliation Service, 2100 K Street, N.W., Washington, D.C. 20427.

FEDERAL RESERVE SYSTEM

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	5,442			2,332	7,774					7,774
1976	6,162			2,641	8,803					8,803
1977	7,064			3,027	10,091					10,091

The Federal Reserve System[1] is the nation's central bank and is charged with administering and making policy for the nation's credit and monetary affairs. Through supervisory and regulatory banking functions, the Federal Reserve System helps to maintain soundness in the banking industry, making it capable of responding to the nation's domestic and international financial needs and objectives. The Federal Reserve System is supervised by the Board of Governors, which determines general monetary, credit, and operating policies and formulates the rules and regulations necessary to carry out the purposes of the Federal Reserve Act.

Research

Research in the Federal Reserve System is conducted by the Division of Research and Statistics, which is responsible for the domestic aspects of the board's activities, and the Division of International Finance, which is responsible for the international aspects. The role of research is threefold:

- ○ to apprise the Board of Governors of current economic developments and to analyze them;
- ○ to give advice to the board with respect to the conduct of monetary policy; and
- ○ to do basic long-term research to improve the policy advice given to the board.

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[1] The Federal Reserve System is on a calendar year budget; figures have been transformed from calendar year to fiscal year to facilitate survey consistency.

The predominant activity of the board is analyzing current monetary developments and the implications of alternative board policies. The Federal Reserve System's research staff tests the implication of any new policy or changes in existing policies through econometric analysis. During the last 10 years, the research staff has developed a series of econometric models, including a model for the economy as a whole as well as more specific models dealing with monetary plans. The research staff also attempts to make its analyses sensitive to social implications such as unemployment, small business, housing, etc. These aspects are included in the analyses of possible changes in monetary policy.

General Purpose Statistics

In addition to its research activities, the Division of Research and Statistics collects statistics on money and banking, especially Federal Reserve Banks and "member banks" of the Federal Reserve System. Statistics are also collected on industrial production, consumer credit and finances, the flow-of-funds system of national accounts, and savings statistics.

The Federal Reserve System publishes statistics in both principal periodic reports (the *Annual Report*, the *Federal Reserve Bulletin*, and the *Historical Chart Book*) and special studies, which have focused on industrial production, financial characteristics of consumers, changes in family finances, and fluctuations in housing construction.

For Further Information

See *Annual Report of the Board of Governors of the Federal Reserve System*, a publication of the Federal Reserve System, or write Federal Reserve System, Twentieth and Constitution Avenue, N.W., Washington, D.C. 20551.

GENERAL SERVICES ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	280				280					280
1976	350				350					350
1977	330				330					330

The General Services Administration (GSA) has responsibility for the management of government property and records. Within GSA, the only program that was found to support social knowledge production and application activities was the Federal Preparedness Agency (FPA). The FPA is the government-wide civil emergency preparedness program that is responsible for the formulation, development, and coordination of national civil preparedness policies and plans. In addition, the agency is responsible for fostering state and local participation in preparedness programs.

Research

The Federal Preparedness Agency supports a limited number of research projects annually. The following projects have been supported during the last several years.

STUDY OF SELECTED ASPECTS OF CONTROLLED CONFLICT This project sought to develop a methodology to estimate the economic, political, and social costs to the United States of nuclear attacks of different magnitudes.

ECONOMETRIC PROGRAM DEVELOPMENT This project sought to improve agency capability to project economic activity under emergency conditions, especially to estimate stockpile requirements and the effect of materials shortages.

EMERGENCY CAPACITY PROJECTION STUDY Emergency capacity includes such factors as changes in productivity, overtime, and production standards. This study seeks to examine emergency capacity for production sectors in order to analyze the adequacy of the industrial mobilization base and to determine stockpile objectives.

For Further Information

Write General Services Administration, Eighteenth and F Streets, N.W., Washington, D.C. 20405.

NATIONAL CENTER FOR PRODUCTIVITY AND QUALITY OF WORKING LIFE

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	100				100			70	70	170
1976	100		25		125			140	140	265
1977	200		30		230			300	300	530

The National Center for Productivity and Quality of Working Life, established in 1975, absorbed the functions of the National Commission on Productivity and Work Quality. The center was established to:

- assist in the formulation of national policies for productivity;
- coordinate federal activities affecting productivity;
- report to Congress on the effect of public regulatory agencies on productivity; and
- stimulate and support both private and public sector efforts to improve productivity and the quality of working life.

Directed by a Board of Directors, the center places particular emphasis on federal productivity program coordination.

Research

The center supports a small amount of social research to improve the range and quality of productivity measurement techniques. In order to implement productivity improvement programs, the center feels it is necessary to have measurement tools that accurately gauge productivity changes. In another area of research, methods of productivity improvements are examined. One study identified and reported on management techniques used by various small businesses to improve productivity.

Dissemination

Since the center has a very small program of original research, it has relied on a strategy of "synthesizing" existing research and disseminating information through publications and conferences. A national clearinghouse has been established. Knowledge syntheses and handbooks have been published on a variety of productivity issues.

For Further Information

Write National Center for Productivity and Quality of Working Life, Room 3002, 2000 M Street, N.W., Washington, D.C. 20036.

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	190		260		450		14,412	2,649	17,061	17,511
1976	500		297		797		14,300	3,300	17,600	18,397
1977	500		440		940		11,600	3,900	15,500	16,440

In order to encourage and support national progress in the humanities and the arts, the National Foundation on the Arts and the Humanities provides catalytic support to cultural institutions and individuals throughout the country. This support, while designed to provide increased access by all citizens to artistic and humanistic activities and works, is also aimed at increasing private and other forms of support.

The National Foundation on the Arts and the Humanities, created as an independent agency in 1965, consists of the National Endowment for the Arts, the National Endowment for the Humanities, and the Federal Council on the Arts and the Humanities. Each endowment has its own council, which advises the chairman of each endowment with respect to policies and procedures, reviews applications for financial support, and makes recommendations on those applications.

Table 20-3 presents the fiscal 1977 obligations for the National Endowment for the Humanities and the National Endowment for the Arts.

TABLE 20-3 National Foundation for the Arts and Humanities Obligations for Social Knowledge Production and Application (fiscal 1977, $millions)

Component	Social Knowledge Production and Application Obligations
National Endowment for the Humanities	15.7
National Endowment for the Arts	0.7
TOTAL	16.4

For Further Information

Write National Foundation on the Arts and the Humanities, 806 Fifteenth Street, N.W., Washington, D.C. 20506.

NATIONAL ENDOWMENT FOR THE ARTS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	190		260		450					450
1976	500		197		697					697
1977	500		240		740					740

The activities of the National Endowment for the Arts are designed to foster the growth and development of the arts in the United States, to preserve and enrich the nation's cultural resources, and to provide opportunities for wider experience in all the arts. The endowment awards grants to individual, state, and regional art agencies and nonprofit organizations. These awards have three major goals: to encourage broad dissemination of arts of the highest quality across the country; to assist major cultural institutions to improve standards and provide greater public service; and to give support that encourages creativity among gifted artists, preserves the cultural heritage, and advances the quality of life of the nation.

Research

In 1975, the endowment created a Research Division to plan, coordinate, support, monitor, and evaluate research on the arts and cultural activities. The goal of the division's research projects is to provide the knowledge needed to improve the accomplishment of agency goals. The following research projects have been planned by the division:

- ○ a feasibility study for an economic data program on the conditions of arts and cultural institutions;
- ○ a consumer demand analysis of arts and cultural services for the South;
- ○ an analysis of the economic impacts of art activities and cultural institutions on their communities; and
- ○ a critical review and evaluation of audience studies of museums and performing arts organizations.

Program Evaluation

The endowment has an Evaluation Division. Two of the evaluation projects supported by the division are:

- ○ an evaluation of the artists-in-schools programs and
- ○ an evaluation of the master craftsmen apprenticeship program.

For Further Information

See *National Endowment for the Arts Guide to Programs 1975-1976* (August 1975), a publication of the endowment, or write Research Division, National Endowment for the Arts, 2401 E Street, N.W., Washington, D.C. 20506.

NATIONAL ENDOWMENT FOR THE HUMANITIES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975							14.412	2.649	17.061	17.061
1976			100		100		14.300	3.300	17.600	17.700
1977			200		200		11.600	3.900	15.500	15.700

The activities of the National Endowment for the Humanities are designed to promote and support the production and dissemination of knowledge in the humanities, especially as it relates to the serious study and discussion of contemporary values and public issues. Support is provided to foster humanistic activities on a broad scale through grants to institutions, individuals, and state- and community-based groups. The activities are designed to improve the quality of knowledge and teaching in the humanities and to increase public participation in humanistic endeavors.

The term "humanities" includes, but is not limited to, the study of the following: language, both modern and classical; linguistics; literature; history; jurisprudence; philosophy; archaeology; comparative religion; ethics; the history, criticism, theory, and practice of the arts; those aspects of the social sciences that have humanistic content and employ humanistic methods (studies in which historical or philosophical approaches predominate); and the study and the application of the humanities to the environment, with particular attention to the relevance of humanities to the current conditions of national life.

The National Endowment for the Humanities was a question mark for the Study Project. Should all or some of its activities be included in a survey of "social knowledge production and application"? The Study Project decided to include the development of educational materials and dissemination activities of the endowment and to exclude the research activities of the agency. It was felt that the research activities of the endowment fell outside the definition of social research used by the survey.

Research

As noted above, the survey excluded the endowment's two major research programs. The Independent Study and Research Program is aimed at individuals with specific, important projects in the humanities. The General Research Program supports large-scale, long-term, or collaborative research projects in the humanities. In fiscal 1977, the two research programs obligated over $6 million. As noted above, the Study Project felt that while the research activities of the endowment were clearly on the border between social and nonsocial research, humanistic research fell outside the definition of social research used by the Study Project.

Program Evaluation

Since fiscal 1976, the endowment has been conducting a limited number of program evaluation studies to assess the effectiveness of its major programs. In fiscal 1977, four evaluation studies of major programs were performed.

Development of Materials

The endowment supports four major programs of materials development, described below.

EDUCATION PROJECTS The purpose of this program is to promote the development and testing of new and exemplary approaches to humanities education by supporting the development of projects or materials. Two types of projects are supported.

Higher Education Projects This program supports the following types of activities: development of experimental courses or programs; development of curriculum materials, including film and TV materials, by which colleges and universities try to reach nontraditional audiences; development of cooperative programs between schools. Examples of projects include:

○ the development of classroom materials (workbooks, films, sound recordings) on aspects of Southern folklore; and

○ the development of self-instructional materials in art history that are suited for community college students.

Elementary and Secondary Education Projects This program supports the following activities: projects that combine teacher training with curriculum development; development of courses or programs that use either an interdisciplinary or single discipline approach; development of cooperative endeavors between schools and institutions of higher learning and cultural institutions. Examples of projects include:

○ the development of program and curriculum materials on South Asia for inclusion into high school social studies courses; and

○ the development of interdisciplinary humanities programs for high schools.

HUMANITIES INSTITUTES In fiscal 1974, the National Humanities Institute program was established to improve humanities curricula. The institutes were designed to provide opportunities for scholars and teachers to come together and create new courses outside the pattern of disciplinary education. After new curricula are developed, they are tested at the home u[illegible]ersities of institute participants. The following curricula have bee[illegible]eloped through this program:

○ The Humanities and the National Life; and

○ Technology and the Humanities.

RESEARCH MATERIALS This program has two major components: development of research tools and editing projects. The two programs are intimately related to each other and comprise the most basic materials from which humanistic research proceeds. In the research tools programs, grants are given for the development of bibliographies, dictionaries, and source guides. These research tools are deemed essential for current and future humanistic scholarship and research. The editing program supports the editing of literary texts, philosophical writings, and historical manuscripts and correspondence. Editing projects serve to make available an author's or musician's work in a definitive form or to provide access to the papers of an historic figure.

BICENTENNIAL HISTORY PROGRAM This program ended in fiscal 1976. The purpose of the program was to develop historical texts and interpretative essays on each state plus the District of Columbia and Puerto Rico. This activity was classified as the development of materials, as the volumes were aimed for use as reference and teaching tools.

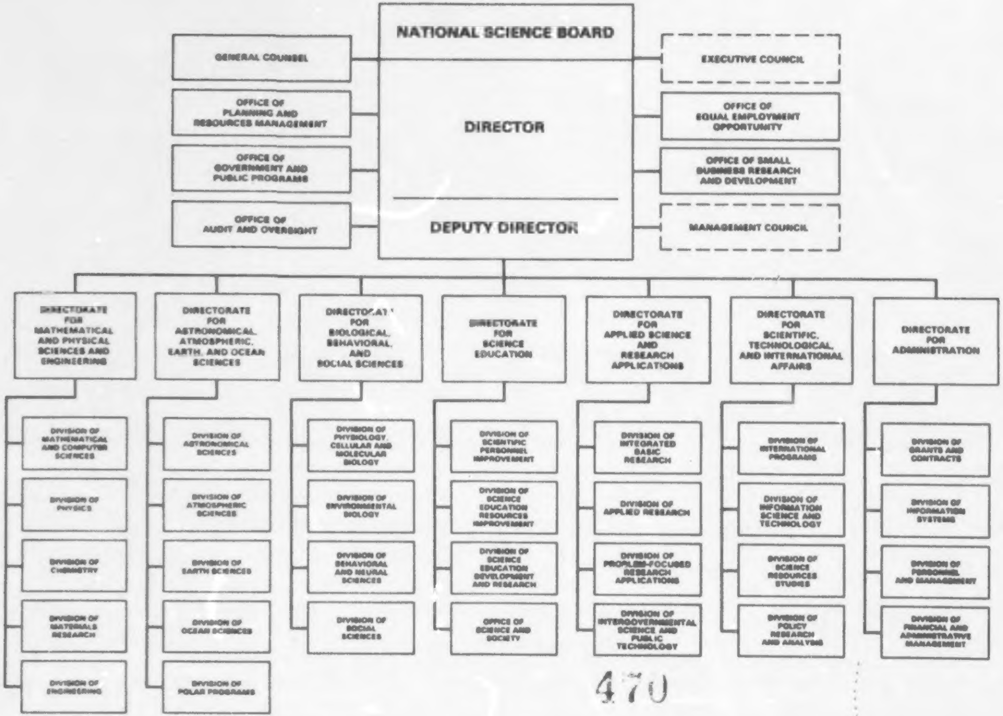
Dissemination

The endowment supports a variety of dissemination activities. The largest program is the Centers of Research program. The endowment supports documentation, reference, and information services at local, regional, and national institutions that house humanistic research material. The development of improved information retrieval systems is also supported.

In addition to the Centers of Research program, other dissemination activities are supported. The endowment has a program of providing technical assistance, via consultants, to colleges, universities, professional schools, and other cultural institutions in order to assist them in developing new programs in the humanities or to evaluate and strengthen existing curricula. Conferences are also supported. During the Bicentennial period, the endowment supported 20 international congresses and conferences, which were held in the United States and abroad. The endowment also supports the annual Jefferson Lecture. Other dissemination activities include: a newsletter, the establishment of a humanities information center/clearinghouse, and the establishment of a reports dissemination system.

For Further Information

See the *Annual Report* of the National Endowment for the Humanities; *Humanities*, the newsletter of the endowment; and *Program Announcement* and *Research Programs*, which are publications of the endowment, or write National Endowment for the Humanities, 806 Fifteenth Street, N.W., Washington, D.C. 20506.


NATIONAL SCIENCE BOARD
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DIVISION OF MATHEMATICAL AND COMPUTER SCIENCES
DIVISION OF PHYSICS
DIVISION OF CHEMISTRY
DIVISION OF MATERIALS RESEARCH
DIVISION OF ENGINEERING
DIRECTORATE FOR ASTRONOMICAL, ATMOSPHERIC, EARTH, AND OCEAN SCIENCES
DIVISION OF ASTRONOMICAL SCIENCES
DIVISION OF ATMOSPHERIC SCIENCES
DIVISION OF EARTH SCIENCES
DIVISION OF OCEAN SCIENCES
DIVISION OF POLAR PROGRAMS
DIRECTORATE FOR BIOLOGICAL, BEHAVIORAL, AND SOCIAL SCIENCES
DIVISION OF PHYSIOLOGY, CELLULAR AND MOLECULAR BIOLOGY
DIVISION OF ENVIRONMENTAL BIOLOGY
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DIVISION OF SOCIAL SCIENCES
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DIVISION OF SCIENTIFIC PERSONNEL IMPROVEMENT
DIVISION OF SCIENCE EDUCATION RESOURCES IMPROVEMENT
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DIVISION OF INTEGRATED BASIC RESEARCH
DIVISION OF APPLIED RESEARCH
DIVISION OF PROBLEM-FOCUSED RESEARCH APPLICATIONS
DIVISION OF INTERGOVERNMENTAL SCIENCE AND PUBLIC TECHNOLOGY
DIRECTORATE FOR SCIENTIFIC, TECHNOLOGICAL, AND INTERNATIONAL AFFAIRS
DIVISION OF INTERNATIONAL PROGRAMS
DIVISION OF INFORMATION SCIENCE AND TECHNOLOGY
DIVISION OF SCIENCE RESOURCES STUDIES
DIVISION OF POLICY RESEARCH AND ANALYSIS
DIRECTORATE FOR ADMINISTRATION
DIVISION OF GRANTS AND CONTRACTS
DIVISION OF INFORMATION SYSTEMS
DIVISION OF PERSONNEL AND MANAGEMENT
DIVISION OF FINANCIAL AND ADMINISTRATIVE MANAGEMENT

FIGURE 20-2 National Science Foundation organizational chart.

NATIONAL SCIENCE FOUNDATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	65,797	992	845	1,842	69,476	5,891	21,769	12,608	40,268	109,744
1976	75,758	1,600	800	1,470	79,628	3,475	13,362	250	17,087	96,715
1977	78,854	1,000	500	2,050	82,404	4,090	11,700	1,700	17,490	99,894

The National Science Foundation (NSF) was established by Congress in 1950 to strengthen scientific research in the mathematical, physical, medical, behavioral, engineering, biological, social, and other sciences in this country. The majority of NSF programs support extramural research. Other NSF goals are to apply scientific resources to selected national problems, to strengthen science education at all levels, to stimulate international scientific cooperation, to assist in the support of training in the sciences and engineering through a program of fellowships, to make science information more readily available, to appraise the effect of research on industrial development and general welfare, and to gather and publish scientific and technical data pertinent to national science policy.

Responsibility for NSF's functions is currently divided among seven directorates, five of which support social knowledge production and application activities (see Figure 20-2). One of these, the Directorate for Applied Science and Research Applications, was reorganized in 1977; the others were reorganized in 1976. The Study Project figures report the arrangement of programs, divisions, and offices as of September 1977 (see Table 20-4).

For Further Information

See *Publications of the National Science Foundation* and *National Science Foundation Guide to Programs*, or write National Science Foundation, 1800 G Street, N.W., Washington, D.C. 20550.

NOTE: This section on the National Science Foundation was written by Sara B. Kiesler.

TABLE 20-4 National Science Foundation Social Knowledge Production and Application Obligations (fiscal 1977, $millions)

Component	Estimated Social Knowledge Production and Application Obligations
Directorate for Biological, Behavioral, and Social Sciences	41.7
Research Applications Directorate	29.0
Directorate for Science Education	18.4
Directorate for Scientific, Technological, and International Affairs	10.1
Directorate for Astronomical, Atmospheric, Earth, and Ocean Sciences	0.7
TOTAL	99.9

DIRECTORATE FOR BIOLOGICAL, BEHAVIORAL, AND SOCIAL SCIENCES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	33,805				33,805					33,805
1976	35,406				35,406					35,406
1977	41,692				41,692					41,692

The Directorate for the Biological, Behavioral, and Social Sciences is designed to support basic research in physiology, cellular and molecular biology, environmental biology, psychology neuroscience, sociology, economics, and other social sciences. The directorate has four divisions, two of which support social science research. Research in these divisions is also supported on basic processes underlying national problems such as energy resources, inflation, and employment.

Division of Behavioral and Neural Sciences

The Division of Behavioral and Neural Sciences is responsible for the support of basic research on the mechanisms and functions of nervous systems and the development and determinants of behavior. Research grants to individual scientists are the primary mechanism of support, but the division also provides some funds for facilities and equipment, doctoral dissertation research, international travel, and special research conferences and workshops. The division's seven programs are described below.

ANTHROPOLOGY This program supports research in cultural and social anthropology, archaeology, and physical anthropology.

LINGUISTICS This program supports research on the syntactic, semantic, phonological, and phonetic properties of individual languages and of language in general. Research is also supported on the acquisition of language by children, the psychological processes in the production and perception of speech, the biological foundations of language, the social influences on and effects of language and dialect variation, and the formal and mathematical properties of language models.

MEMORY AND COGNITIVE PROCESSES This program supports research on the processes of learning, thought, and cognitive development, including topics such as memory, attention, concept formation, imagination, reading, problem solving, decision making, and intelligence from a variety of theoretical perspectives.

NEUROBIOLOGY This program is concerned with research on all aspects of nervous systems, their function and development at the molecular, cellular, physiological, and behavioral levels. Subareas include neuroanatomy, neurochemistry, neuroendocrinology, neuropharmacology, neurophysiology, and neuropsychology.

PSYCHOBIOLOGY This program is concerned with the structure, function, development, and evolution of behavior and its genetic, environmental, hormonal, and motivational determinants. Topics include stimulus control, preferences and aversions, conditioning, ingestive and reproductive behavior, migration and homing, and the social and communicative behavior of animals.

SENSORY PHYSIOLOGY AND PERCEPTION This program is concerned with transduction, encoding, and perception of stimuli by organisms. All sensory systems are included: those of sight, hearing, taste, and smell; equilibrium, kinesthesis, proprioception, touch, temperature, pain; the perception of motion, spatial relations, and objects; and aspects of environmental perception.

SOCIAL AND DEVELOPMENTAL PSYCHOLOGY This program supports laboratory and field research in all areas of human social behavior including group dynamics, social influence, and interpersonal relations. The program includes research on developmental processes in children and adults, with emphasis on social, personality, and emotional development.

Division of Social Sciences

The Division of Social Sciences is responsible for the support of basic research in each of eight areas of social science. Interdisciplinary studies, combining social with natural sciences or engineering, are supported occasionally. The division awards research grants as well as some funds for equipment, data banks, and international meetings. The division's eight programs are listed below.

ECONOMICS This program supports research in all areas of economic research directed toward improving understanding of economic processes and the measurement of economic relationships.

HUMAN GEOGRAPHY AND REGIONAL SCIENCE This program supports research regarding spatial and locational aspects of human organization and activity.

LAW AND SOCIAL SCIENCES This program supports research on legal institutions, mechanisms, principles, and personnel. The research is interdisciplinary, typically combining legal subject matter with social science methodology.

POLITICAL SCIENCE Research supported by this program is aimed at understanding political processes by which societies coordinate activities through governments.

SOCIOLOGY This program supports research in sociology and demography and research concerned with explanations of the nature and behavior of social organizations and institutions.

SPECIAL PROJECTS AND SOCIAL INDICATORS This program provides support for the construction, renovation, or remodeling of specialized research facilities; the design or purchase of specialized research equipment; the development of computer-based data centers and other types of research-resource undertakings; multidisciplinary research. The Social Indicators program provides support for research in sociology, social psychology, economics, and other fields aimed at the objective measurement of social change and changes in the quality of life.

HISTORY AND PHILOSOPHY OF SCIENCE This program provides support for research in the history of science and technology; the philosophy of science; and pertinent philosophical analyses of the relation of science to other human activities.

SCIENCE POLICY RESEARCH This program supports research on science policy, concentrating on social processes affecting the conduct of scientific research.

For Further Information

See *Social and Behavioral Science Programs in the National Science Foundation*, Assembly of Behavioral and Social Sciences, National Research Council, 1976; and *Directorate for the Biological, Behavioral, and Social Sciences Program Report: Behavioral and Neural Sciences* and *Division of Social Sciences Grant List*, which are two publications of NSF.

DIRECTORATE FOR APPLIED SCIENCE AND RESEARCH APPLICATIONS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	19,357				19,357	1,385			1,385	20,742
1976	28,454				28,454	1,975			1,975	30,429
1977	26,952				26,952	2,090			2,090	29,042

The Directorate for Research Applied to National Needs (RANN) was designed to apply science and technology to the solution of selected national problems. In fiscal 1976 and 1977, at the time of the Study Project survey, RANN was organized according to five major program areas:

- Resources,
- Environment,
- Productivity,
- Intergovernmental Science and R&D Incentives, and
- Exploratory Research and Technology Assessment.

The Study Project classified nearly all the social knowledge production and application in these programs as research, and the programs described in this section are those supporting social knowledge production at the time of the survey.

In 1977, RANN was reorganized and renamed the Directorate for Applied Science and Research Application (ASRA). The new directorate will have the following units: the Office of the Assistant Director, the Division of Problem Analysis, the Division of Integrated Basic Research, the Division of Applied Research, the Division of Problem-Focused Research Applications, and the Division of Intergovernmental Science and R&D Incentives. The Division of Applied Research is organized in two sections: the Applied Social and Behavioral Sciences Section and the Applied Physical, Mathematical and Biological Sciences Section.

Research

Research in the RANN programs is aimed at discovering how to apply scientific and technological knowledge and at assessing selected national problems. The programs in RANN that support social knowledge production are described below.

PRODUCTIVITY This program is the largest social research activity in RANN. It has three major divisions: Public Sector Productivity, Public Policy, and Private Sector Productivity—each of which supports some social research.

Public Sector Productivity Social research is conducted on telecommunications, governance and social services at different governmental levels, and the delivery of services and technology.

Public Policy In this division there is research conducted on the measurement of economic productivity, the effect of regulation, the equity and distribution of public policy, and public–private sector relations.

Private Sector Productivity This division also has a small social research component supporting research on access to technology.

RESOURCES This program has three subprograms: Resource Systems, Renewable Resources, and Nonrenewable Resources. Those research activities that are not social have been excluded.

Resource Systems This program is primarily concerned with systems analysis and policy analysis of resource needs, utilization, and policies, such as an assessment of tax and energy policy in the petroleum industry.

Renewable Resources and Nonrenewable Resources These two programs are focused on describing the demand for resources, the incentives for resource development, and the barriers to that development, particularly as they pertain to foods and minerals.

ENVIRONMENT This program area includes research on chemical threats to the environment, regional environmental management, earthquake engineering, weather modification, and societal response to natural hazards. Social research includes topics such as the analysis of environmental management strategies, land use allocation policy, regulatory codes, and the economic and social costs of natural disasters.

INTERGOVERNMENTAL SCIENCE AND R&D INCENTIVES This program area is designed to provide for local and state governments some incentives and models for using science and technology in the formulation of government programs and policies. Research is conducted on needs assessments, financial management, increasing the efficiency of city operations, and the allocation of government resources.

EXPLORATORY RESEARCH AND TECHNOLOGY This program area is designed to draw attention to the long-range social, environmental, and economic effects of new technology and to possible technological solutions to national problems. Issues studied include the effect on productivity of new environmental regulations and the implications of an economy in which resources are scarce.

Policy Implementation Demonstrations

The Intergovernmental Science and R&D Incentives program has supported work classified as policy implementation demonstrations, which promote the use of incentives for R&D and models of R&D use in local and state governments, such as setting up a model interstate scientific and technical information clearinghouse.

For Further Information

See *Abstracts of NSF/RANN Research Reports: Private Sector Productivity*, and *Intergovernmental Programs, Abstracts of Publications 1967–1975*, both publications of NSF.

DIRECTORATE FOR SCIENCE EDUCATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,000	992			1,992	4,506	21,769	12,608	38,883	40,875
1976	2,000	1,600			3,600	1,500	13,362	250	15,112	18,712
1977	2,000	1,000			3,000	2,000	11,700	1,700	15,400	18,400

The Directorate for Science Education has four major responsibilities: to support improvements in science education, to help ensure an adequate supply of scientists, to support research and development on science education, and to help make science information available to the public. In 1976 the directorate was reorganized to permit somewhat greater emphasis on research on science education and citizen involvement in and understanding of science, and somewhat less emphasis on the development of new curricula.

There are four major divisions in the directorate:

- the Division of Science Education Resources, which helps schools, colleges, and universities to improve their instructional programs;
- the Division of Science Manpower Improvement, which provides fellowships, traineeships, and grants for students;
- the Division of Science Education Development and Research, which supports work on curriculum development and other course improvements as well as some research; and
- the Office of Science and Society, which is the program for increasing public understanding of science, the availability of scientific knowledge, and knowledge of the relationship between social values and science.

Research

The Directorate for Science Education has supported independent research by undergraduates, through its student-oriented programs (in the Division of Science Manpower Improvement), and, beginning in 1976, social research on the implications for ethics and human values of science and technology (in the Office of Science and Society). An example of the latter is work on the ethical issues involving the use of behavior modification programs in prisons and hospitals. In 1977, a new program for research on science education was added to the Division of Science Education Development and Research; it is not, however, included in the Study Project survey. Other topics of research include minorities in science and the learning of science.

Policy Formulation Demonstrations

The Study Project classified two programs as policy formulation demonstrations.

WOMEN IN SCIENCE This program is designed to increase the flow of women into scientific professions by identifying barriers to their entry and testing educational activities, incentives, and retraining programs that might correct the underrepresentation of women in scientific fields.

PROBLEM ASSESSMENT AND EXPERIMENTAL PROJECTS This program, supported in 1975 and 1976, has been ended. In 1977, activities designed to identify problems, policy issues, and research needs were incorporated into the new Research on Science Education program. The goal of these projects was to improve science education by testing new programs and approaches to education in science.

Policy Implementation Demonstrations

An activity previously called Educational Program Restructuring was reorganized in 1976 and assigned to two programs in the Division of Science Education Resources.

IMPROVEMENT OF PRE-COLLEGE INSTRUCTION This program helps state and local school authorities acquire information about alternative instructional practices and materials and is testing and evaluating new methods of instruction.

IMPROVEMENT OF SCIENCE FACULTY RESOURCES This program supports work on improving college-level course content, structure, and environments. Grants to faculty members have been made for revising teaching materials and acquiring new equipment for lecture demonstrations and laboratories.

Development of Materials

One of the primary activities in the Directorate for Science Education has been curriculum development, an area with three major components:

- development, testing, and evaluation of elementary and secondary school instructional materials so as to improve science courses;
- development and evaluation of technological innovations, such as the use of computers in teaching; and
- development and testing of innovative undergraduate and graduate programs in science education, such as the creation of course modules and novel delivery systems for off-campus instruction.

Dissemination

Two programs are involved in dissemination.

INSTRUCTIONAL IMPROVEMENT IMPLEMENTATION This program aims at disseminating precollege materials.

COLLEGE FACULTY SHORT COURSES Through this program, short courses for college teachers are held at central locations in several geographic regions.

DIRECTORATE FOR SCIENTIFIC, TECHNOLOGICAL, AND INTERNATIONAL AFFAIRS

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	11,335		845	1,842	14,022					14,022
1976	9,598		800	1,470	11,868					11,868
1977	7,500		500	2,050	10,050					10,050

The Directorate for Scientific, Technological, and International Affairs is responsible for conducting studies and collecting data on science resources, administering international science activities, undertaking science and technology policy analysis, and providing advice on how new science and technology can better serve national and international economic and social objectives. In fulfilling these functions, the directorate carries out the following programs:

- International Cooperative Scientific Activities;
- Science Information Activities; and
- Science Assessment, Policy and Planning, a program group area that includes Science Resources Studies, which collects data and analyses on scientists in various fields, Policy Research and Analysis, which studies the pertinence of science and technology to alternative policies, and NSF Planning and Evaluation, which involves planning and assessment of NSF programs.

Research

Social research is supported in three program areas.

SCIENCE INFORMATION This program supports research on information science, such as the use of computers and the transfer of technological information, and access improvement, such as computerized editing, as well as policy research, such as library-publisher relationships and research on the use of new information technology.

SCIENCE RESOURCES This program collects and publishes data about scientists and engineers. Research is supported to evaluate the implications and meaning of this kind of data, such as analyses of historical trends in basic and applied research and analysis of changes in the age distribution of scientists and its relation to employment activities.

POLICY RESEARCH AND ANALYSIS This program is designed, not to support research per se, but to improve analysis of science policy and technological development. Examples are analyses of the role of science and technology in developing public policy and the analysis of the costs and benefits of technological innovation.

Program Evaluation

This activity is undertaken by the NSF Planning and Evaluation program, primarily to evaluate NSF's own programs. Some support is given to development of better methods for evaluating programs and some to intramural evaluation, such as analysis of the NSF grants award decision process.

General Purpose Statistics

The major responsibility of the Science Resource program is to collect data on human, financial, and other resources for science and technology. Major data collection efforts include studies of the employment, type of work, and professional characteristics of scientists and engineers. A major area of data collection is federal funding for academic science and other scientific activities.

DIRECTORATE FOR ASTRONOMICAL, ATMOSPHERIC, EARTH, AND OCEAN SCIENCES

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	300				300					300
1976	300				300					300
1977	710				710					710

Research

The Directorate for Astronomical, Atmospheric, Earth, and Ocean Sciences has two program areas that support social knowledge production.

ARCTIC RESEARCH This program supports some socioeconomic research related to resource exploration and economic growth in the Arctic. The current emphasis is on obtaining information about the economic benefits and social changes associated with energy development in Alaska.

CLIMATE DYNAMICS This program supports research on the ecological, political, social, and economic effects of a changing global climate.

SMALL BUSINESS ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	172		260		432	45			45	477
1976	550		385		935					935
1977	550		295		845					845

The purpose of the Small Business Administration (SBA) is to counsel, assist, and protect the interests of small businesses. The activities of the SBA include: financial loans and investments to small businesses; procurement assistance; management assistance; and disaster loans. In addition, the SBA ensures that small business concerns receive a fair proportion of government purchases, contracts, and subcontracts.

Research

The research activities of the Small Business Administration have been concentrated in the following areas:

- economic analysis and research studies concerning tax policies, competitive restraints, financial resources, the state of small business in the economy, trade, procurement, crime, and other selected topics related to small business.
- development of economic and business indicators related to small businesses, with emphasis on the national and regional position of small business. These include such measures as employment, the gross national product, sales, the number of businesses, and regional and metropolitan distribution of business. The SBA prepares and publishes economic profiles of the United States for each of the 10 SBA regions.
- analyses of the economic environment, with emphasis on the identification of problems and opportunities for small businesses.
- other studies focusing on the effect of energy regulations, pollution regulations, and consumerism on small firms.

Program Evaluation

Emphasis has been placed on evaluating agency programs. Analytical techniques and systems have been developed to measure the benefits and costs of SBA programs and assess agency progress toward achievement of SBA goals. Program evaluations are specifically structured to determine the social and economic effect of assistance to the small business community.

For Further Information

Write Small Business Administration, 1441 L Street, N.W., Washington, D.C. 20416.

SMITHSONIAN INSTITUTION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	7,600		134		7,734		82	1,301	1,383	9,117
1976	8,200		60		8,260		101	1,245	1,346	9,606
1977	11,100		57		11,157		120	1,110	1,230	12,387

The Smithsonian Institution conducts a variety of activities: (1) it maintains exhibits representative of the arts, American history, aeronautics and astronautics technology, anthropology, geology, and biology; (2) it acquires and preserves for reference and study purposes millions of items of scientific, cultural, and historical importance; (3) it conducts research in the natural and physical sciences and in the history of cultures, technology, and the arts; and (4) it presents performances of American arts and crafts and supports education programs at all levels and participates in the exchange of scientific information.

Research

The Smithsonian supports and conducts social research in a variety of areas. As a repository of the national collections documenting the historical and technological achievements of the American people, the Smithsonian serves as a center for the study of American civilization. Topics of research include: anthropology and ethnic studies; the history of art, design, science, and technology; American history, material, and folk culture; and studies of fundamental political, social, and intellectual issues relating to critical contemporary problems.

Much of the Smithsonian's research on the human experience is conducted through the Center for the Study of Man, which coordinates research on a series of important anthropological and human science programs. The activities described below are supported by the center.

THE AMERICAN INDIAN This program supports research on surviving American Indian tribes.

URGENT ANTHROPOLOGY This program awards research grants for study in geographical areas that are undergoing rapid environmental change as a result of urbanization, improved communications, and better transportation. Its objective is to salvage and preserve information in selected rapidly changing areas before time and events eliminate opportunities to understand the cultures that exist there.

CROSS-CULTURAL RESEARCH This program coordinates the efforts of numerous anthropologists and other human scientists in the development of new comparative information on contemporary world problems. An investigation of the cultural effects of rising world land values is now being planned.

IMMIGRATION AND ETHNIC STUDIES This program is concerned with the "peopling" of America as an ongoing process. It has carried out basic research in Panama, the Caribbean area, Canada, and the United States. The program has studied ethnic groups and the causes and effects of immigration. The program is also exploring the problem of illegal immigrants and evaluating data from agencies with information about immigration from the Pacific Islands.

A limited amount of social research is conducted at the Chesapeake Center for Environmental Studies. The center is examining the political dimensions of interaction between governmental and technical groups concerning ecosystem actions on the Chesapeake Bay. The center also examines the effect of land use patterns on the environment.

Program Evaluation

The Smithsonian supports a small number of program evaluations of its activities in cultural affairs.

Development of Materials

In the Center for the Study of Man, the American Indian program prepares educational materials concerning Indians for individuals, schools, and communities. Educational materials are also developed by the Office of Elementary and Secondary Education in the Smithsonian.

Dissemination

The Smithsonian Institution supports a major program of scientific and technical information dissemination. In addition, it frequently supports conferences. In 1976, the institution supported a series of conferences on "Kins and Communities: The Peopling of America." One of the conferences in that series examined the role of family institutions in shaping America during its first 200 years. Another conference in 1976 focused on "The United States and the World."

In addition to these activities, the Smithsonian is authorized by the National Museum Act to conduct technical assistance activities, which are aimed at advancing the curatorial profession.

For Further Information

Write Smithsonian Institution, 1000 Jefferson Drive, S.W., Washington, D.C. 20560.

TENNESSEE VALLEY AUTHORITY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975		388			388			443	443	831
1976		358			358	1,000		614	1,614	1,972
1977		249			249	3,700		832	4,532	4,781

The Tennessee Valley Authority (TVA) is a government-owned corporation that conducts a unified program of resource development geared to the advancement of economic growth in the Tennessee Valley region. The authority's program activities include flood control, navigation development, electric power production, fertilizer development, recreation improvement, forestry and wildlife development, and community development.

Policy Formulation Demonstrations

The TVA is funding a small policy formulation demonstration to test methods of technology transfer in the Tennessee Valley. The program is testing the feasibility of providing the latest computer technology to local governments in the region to assist them in providing municipal services.

Policy Implementation Demonstration

A major activity of the TVA is promoting the concept of regional and community development. To demonstrate the concept of community development, the TVA is supporting a new rural community in Alabama. The purpose of the Elkmont Rural Village is to demonstrate an example of an alternative rural living opportunity. The planned village will also demonstrate how anticipated future housing demands might be met by providing a small, planned residential community with a full range of public services as a competitive alternative to unplanned strip development in rural areas. The Elkmont Rural Village project is also promoting open land uses in the village that will safeguard rural amenities while making available facilities and services required to support a population concentration. The Study Project's dollar figures represent only TVA's contribution to the project.

Dissemination

The TVA supports a technical assistance program in the valley. This program provides information concerning local government management, telecommunications, and community development to cities in the valley. Areas of municipal management information include solid waste management and fire protection.

For Further Information

Write Tennessee Valley Authority, Room 410, New Sprankle Building, Knoxville, Tenn. 37902.

U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	153				153					153
1976	180				180					180
1977	415				415					415

The U.S. Arms Control and Disarmament Agency (ACDA) assists the President and the secretary of state in the formulation and implementation of arms control and disarmament policies that will promote the national security of the United States and its relations with other countries. The agency participates in discussions and negotiations with the Soviet Union and other countries on issues related to arms control and disarmament.

Research

The Arms Control and Disarmament Agency supports a limited amount of social research on strategic arms limitation, mutual and balanced force reductions and conventional arms control, and nuclear nonproliferation. The projects described below have been supported by the agency.

ANALYSIS OF TRENDS IN NUCLEAR PROLIFERATION This study examined alternative trends in nuclear proliferation and analyzed the problems that might result over the next 20 years.

STUDY OF THE TECHNICAL ASPECTS OF MILITARY EXPENDITURE LIMITATIONS This project examined the feasibility of military expenditure limitations as a multilateral arms control device. The study included an analysis of Soviet attitudes and motivations with respect to limiting military expenditures.

SOVIET SALT DECISION MAKING This study examined the Soviet foreign affairs decision-making process. The results will be a model that may be useful in the formulation of U.S. negotiating strategy in the Strategic Arms Limitations Talks II.

QUALITATIVE CONSTRAINTS ON CONVENTIONAL ARMAMENTS This project investigated the implication of measures that would place constraints on the qualitative aspects of conventional arms, with a view to determining the military, political, and economic factors bearing on the desirability and feasibility of such measures.

For Further Information

Write U.S. Arms Control and Disarmament Agency, Department of State Building, Washington, D.C. 20451.

U.S. CIVIL SERVICE COMMISSION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,531		65	798	2,394	1,750	1,111		2,861	5,255
1976	1,581		235	645	2,461	2,000	1,148		3,148	5,609
1977	1,470			636	2,106	1,333	1,068		2,401	4,507

The basic purpose of the U.S. Civil Service Commission (CSC) is to administer a merit system of federal employment. Initially, the commission's job was largely restricted to recruiting and examining. Today, the modern merit system includes not only recruiting and examining but also employee development and training, intergovernmental personnel programs, personnel management, and equal employment opportunity.

Research

The commission's social research is conducted largely in-house and centers around two areas: occupational analysis and personnel measurement. The commission conducts research on occupational analysis for the following purposes:

○ to develop position classification standards to place persons in their correct lines of work and grade levels;

○ to develop qualification standards for evaluating the knowledge, skills, and abilities of applicants for federal employment;

o to develop appropriate selection procedures for evaluating applicants for federal employment; and

o to compare work in the federal government with similar work in private industry as a basis for adjusting salary levels in the federal service.

Personnel measurement studies include research concerning written and other tests for federal, state, and local examinations. The purpose of this research is to support the day-to-day operation of the commission and ensure equal employment opportunity. Improvements in the test have made it possible for handicapped persons (such as the blind and the deaf) to compete with others for federal employment. Other studies have dealt with the subject of the fairness of tests (e.g., cultural bias) to minority groups.

Program Evaluation

The Intergovernmental Personnel Program was evaluated in fiscal 1975 and fiscal 1976. Both individual projects and the program as a whole were evaluated.

General Purpose Statistics

The Civil Service Commission has the responsibility for collecting statistics on the number and characteristics of the federal civilian work force, payroll data, turnover data, and other statistics on civilian employment. In addition to an annual report on the statistics listed above, the commission responds to requests from the Congress and other agencies for special information on the federal work force. Data are also collected and published on the number of blue-collar and white-collar employees, number of women employed, and minority group employment in the federal government.

Policy Implementation Demonstrations

The Civil Service Commission administers the intergovernmental personnel program, which aims to improve personnel management and training in state and local governments. Policy implementation demonstrations are supported to assist state and local governments in improving their personnel and management systems through the adaptation of new or improved techniques and procedures. The state of Washington has received funds to demonstrate an improved job selection system for higher education personnel. Other states and localities have been funded to conduct demonstrations to show new procedures that will improve equality of opportunity throughout their personnel systems and the productivity of employees and demonstrate new approaches to improving management effectiveness.

Development of Materials

The commission supports the development of testing instruments that are used in the evaluation of individuals for selection and advancement in the federal civil service systems. Instruments developed include tests of written ability, knowledge and interest tests, performance tests, rating schedules, simulation exercises, computer-assisted tests, performance rating schedules, job analysis forms, oral interview schedules, and organizational assessment questionnaires.

For Further Information

Write U.S. Civil Service Commission, 1900 E Street, N.W., Washington, D.C. 20415.

U.S. INFORMATION AGENCY

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	194		291		485					485
1976	208		312		520					520
1977	208		312		520					520

The U.S. Information Agency (USIA) has the responsibility for the conduct of overseas information and cultural programs to promote a greater understanding of the United States and its government, people, customs, traditions, and domestic and foreign policies. The USIA uses a wide variety of communication techniques—from personal contact to television satellites—to explain the United States and its policies. The agency advises those responsible for the formulation and implementation of foreign policies on the probable effect of those policies on foreign opinion.

In October 1977, the President proposed that the USIA and the State Department's Bureau of Educational and Cultural Affairs be consolidated in a new Agency for International Communication. The purpose of the reorganization is to expand informational, and cultural interchange in the world.

Research

The USIA has an Office of Research that designs and conducts survey research studies to identify the nature and structure of the audience with which the USIA seeks to communicate. These studies also seek to measure the attitudes of the USIA audience toward American foreign policies, American society, and specific issues that the USIA treats in its programs. The office systematically applies social science research techniques to develop cumulative assessments of its research and the effect of selected high priority media products and field programs. The USIA also prepares studies on other nations' overseas informational and cultural programs.

Program Evaluation

The USIA conducts research surveys to assess the reach and effectiveness of USIA programs in foreign countries. These evaluation studies assist the agency in tailoring local programs to the target audience. In addition, information is provided for program operations and management decision making.

For Further Information

Write U.S. Information Agency, 1750 Pennsylvania Avenue, N.W., Washington, D.C. 20547.

VETERANS ADMINISTRATION

Social Knowledge Production and Application Obligations ($thousands)

	Knowledge Production Activities					Knowledge Application Activities				
Fiscal Year	Research	Policy Formulation Demonstrations	Program Evaluation	General Purpose Statistics	Total	Policy Implementation Demonstrations	Development of Materials	Dissemination	Total	TOTAL
1975	1,505	1,085		635	3,225	652			652	3,877
1976	1,584	2,486	266	747	5,083	1,589			1,589	6,672
1977	1,485	1,941		1,255	4,681	1,163			1,163	5,844

The Veterans Administration (VA) administers laws covering a wide range of benefits for former members and dependents of the Armed Forces. In addition, the VA administers the largest organized health care delivery system in the United States. The VA's medical programs involve a widespread system of nursing homes, clinics, and more than 170 hospitals.

Research

The largest portion of the VA's research is in the area of biomedical and prosthetic research. Social research is, however, supported in the areas described below.

AGING These studies examine behavioral patterns associated with aging and the delivery of geriatric services. Specific studies have looked at attitudes toward retirement and improvements in geriatric out-placement procedures.

DRUGS Psychological studies of veteran drug addicts have been funded. Behavioral research has also been supported on early drug screening programs.

ALCOHOLISM Research studies have examined the behavioral aspects of alcoholism. Studies have attempted to define the development of prealcoholism and alcoholism.

SOCIAL WORK The goal of this research has been to raise the quality of care and quality of life for those persons served by VA facilities. Research has examined the methods of delivering social work services as well as patient satisfaction with the quality of care provided.

Policy Formulation Demonstrations

The VA supports demonstrations to test new systems for delivering health care services. Pilot programs are funded that are intended to lead to direct improvement in the clinical care of patients and service delivery. One policy formulation demonstration tested a novel admission and triage system to find out whether patient care could be improved by conserving scarce resources. Another demonstration examined the economic and clinical effectiveness of a biomedical monitoring system.

General Purpose Statistics

The Veterans Administration collects statistics on the size, demographic and economic characteristics, and geographic distribution of the veteran population and their families, both current and projected. Data on beneficiaries and benefit payments under veteran's programs are also collected and analyzed. In addition, the VA collects data on the access and quality of VA health care services. Health care statistics are collected in order to identify the demand for VA health care services.

Policy Implementation Demonstrations

In addition to policy formulation demonstrations, the VA supports demonstrations at individual hospital sites with the expectation that the practice or concept will be adopted at others. An example of such a demonstration is a counseling program connected with drug and alcohol treatment programs. Geriatric social work programs have also been demonstrated in VA hospitals.

For Further Information

See *Medical Research in the Veterans' Administration*, U.S. House of Representatives, 94th Congress, 1st session, House Committee on Veterans' Affairs, House Committee Print No. 5, or write Veterans Administration, 810 Vermont Avenue, N.W., Washington, D.C. 20420.

Appendix: Recent Federal Commissions

The Study Project did not survey commissions of the federal government. We feel, however, that such commissions frequently serve an important social knowledge production or application function. The background volumes of commissions are often an important source of original research or syntheses of existing studies. It is difficult, however, to separate a commission's social knowledge production and application obligations from its total budget. In addition, some commissions do not conduct either knowledge production or application activities. For these reasons, commissions—while they are a useful source of social knowledge production and application—were excluded from the Study Project survey. The commissions listed below have been funded by the federal government during the last five years.[1]

Aviation Advisory Commission
Commission on American Shipbuilding
Commission on Executive, Legislative, and Judicial Salaries
Commission on Federal Paperwork
Commission on Government Procurement
Commission on Highway Beautification
Commission on Obscenity and Pornography
Commission on Population Growth and the American Future
Commission on Railroad Retirement

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[1] The list was compiled from the annual *Appendix to the Budget of the United States Government* (U.S. Government Printing Office, Washington, D.C.), and represents fiscal years 1973–1978.

Commission on the Organization of the Government for the Conduct of Foreign Policy
Commission on the Organization of the Government of the District of Columbia
Commission on the Review of the National Policy Toward Gambling
Defense Manpower Commission
Joint Commission on the Coinage
Joint Federal-State Land Use Planning Commission for Alaska
National Commission for the Review of Federal and State Laws Relating to Wiretapping and Electronic Surveillance
National Commission on Consumer Finance
National Commission on Electronic Fund Transfers
National Commission on Fire Prevention and Control
National Commission on Marihuana and Drug Abuse
National Commission on Materials Policy
National Commission on the Observation of International Women's Year
National Commission on Productivity and Work Quality
National Commission on Reform of Federal Criminal Laws
National Commission on Supplies and Shortages
National Commission on the Financing of Postsecondary Education
National Study Commission on Records and Documents of Federal Officials
National Tourism Resources Review Commission
National Transportation Policy Study Commission
National Water Commission
Privacy Protection Study Commission
Public Land Review Commission
Select Commission on Western Hemisphere Immigration

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